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TRANSACTIONS

OF THE

FORTY-FIFTH SESSION

OF THE

HOMŒOPATHIC MEDICAL SOCIETY

OF THE

STATE OF PENNSYLVANIA

Held at the Board of Trade Building, Harrisburg
September, 22, 23, and 24, 1908

LANCASTER, PA.
THE EXAMINER PRINTING HOUSE
1908

OF PHYSICIANS
OF
PHILADELPHIA

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	do	H. F. Schantz, M. D.,.....Reading.
	(1 yr.)	J. J. Tuller, M. D.,.....Philadelphia.
	do	D. C. Kline, M. D.,.....Reading.
	do	G. A. Mueller, M. D.,.....Pittsburgh.

To the Officers and Members of the Homœopathic Medical Society of the State of Pennsylvania:

The Committee on Publication herewith presents the Transactions of the Forty-fifth Session of the Society. One paper read at the meeting had neither title nor name of author on it, and the Chairman of the Section under which it was presented, could give no information on the subject, so that it does not appear with the rest.

E. M. Gramm, M. D.,
Ella D. Goff, M. D.,
G. B. Moreland, M. D.

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TRANSACTIONS

OF THE

FORTY-FIFTH SESSION

OF THE

Homœopathic Medical Society

OF THE

STATE OF PENNSYLVANIA.

Board of Trade Building, Harrisburg,
September 22, 23 and 24, 1908.

The President, W. F. Edmundson, M. D., called the meeting to order on the morning of September 22, 1908.

The Divine aid was invoked by the Rev. J. Ritchie Smith, Pastor of the Market Square Presbyterian Church.

J. Ross Swartz, M. D., introduced the Hon. E. S. Meals, M. D., Mayor of Harrisburg, who delivered the following

ADDRESS OF WELCOME.

Mr. Chairman and Members of the Homœopathic Medical Society of the State of Pennsylvania:

In welcoming you to the city of Harrisburg, we feel that you are honoring us more than we can honor you. Knowing the good work done in the practice of medicine, I am led to believe that there is more charity in this profession than in any other.

As we have his Excellency, Gov. Stuart, here to address you this morning, I am not going to take up much of your time. I do want to say to you, however, that we extend to you a hearty welcome.

We want you to make an examination of our water supply, enjoy our parks, and do it so thoroughly that the next time, when considering a place for a meeting, you will make Harrisburg your choice.

His Excellency, Edwin S. Stuart, Governor of Pennsylvania, thereupon delivered the following

ADDRESS OF WELCOME.

Mr. Chairman, Ladies and Gentlemen, and Members of the Homœopathic Medical Society of the State of Pennsylvania:

When one becomes Governor, all cities in the Commonwealth look the same, as do all schools of medicine. I am here as Governor of this Commonwealth.

I was listening to the Mayor's word of encouragement. I am not going to detain you by a long address. A short time ago, I was told of a principal who always asked the school children a certain question. That question was: "What would you do in case of fire?" The children were drilled to answer: "Fall into line and march down stairs." Upon one occasion, the old gentleman came and for the first time he did not ask this question. Instead, he asked: "What would you do if I were to make a little speech?" "Fall into line and march down stairs," was the prompt reply.

I am here to say a few words to the practitioners of medicine of your School in this Commonwealth. The State of Pennsylvania recognizes no particular School of medicine; it has always contributed to the maintenance of all hospitals, no matter what School they represent. Your Society has had the same appropriations as the other, and this has been a benefit to the people throughout the Commonwealth. Your School of medicine, which has advanced so rapidly, has come to stay.

There is one other matter to which I wish to call your attention. We are erecting a State institution, a homœopathic State hospital for the insane. The State of Pennsylvania, for seven years, has contributed the money for this purpose, the last time $300,000, to that institution. Today, there is not room there for one single patient. I am informed by the Board of Trustees that they expect to have it finished soon. We ought to have it as early as possible to take care of the poor and insane in the State. Since becoming Gov-

ernor, I have had the honor of appointing Dr. Tuller a member of the commission that has charge of the erection of the hospital.

I know the gentleman well, and I have every reason to hope and believe that he will infuse new life into the work, and that the institution will soon be a credit to the State. I wish to say that I am very glad to meet you, and on behalf of the State of Pennsylvania, I bid you welcome. However, if you get into any trouble, I am perfectly powerless to help you; you will have to see the Mayor.

Dr. Augustus Korndoerfer, Sr., thereupon delivered the following

RESPONSE TO THE ADDRESS OF WELCOME.

Mr. President, the Mayor, your Excellency, and Members of the Society:

It affords our Society extreme pleasure in listening to the kind words of our Chief Executive and of the Mayor of Harrisburg.

It has been about twenty-five years since we last met in Harrisburg. We certainly appreciate the fact that one of our old School confreres, and his Excellency, the Governor, who has been under the treatment of the old school physicians—or suffered from it—are here to welcome us.

I wish to thank his Excellency for his remarks on the subject of the State Hospital for the Insane. I wish to state that I think better times are ahead. The Governor has given us a great deal of help in appointing Dr. Tuller a member of the commission that is entrusted with the duty of building the new hospital for the insane.

We thank you for the welcome extended; we thank you in the name of the Homœopathic Medical Society of the State of Pennsylvania, and we assure you that while it has been twenty-five years since we met in Harrisburg, it certainly will not be twenty-five years before we meet here again.

On behalf of the Goodno Homœopathic Medical Society its President, S. S. Mann, M. D., delivered the following

ADDRESS OF WELCOME.

Mr. President, Fellow Members of the Homœopathic Medical Society of Pennsylvania, Ladies and Gentlemen:

The Goodno Homœopathic Medical Society, composed of Ho-

mœopathic physicians from the counties of Dauphin, York and Lancaster, has delegated to me the pleasant duty of welcoming you, in its behalf, to this city. Being somewhat of a stranger myself, I feel as though this task might possibly have, with more propriety, been undertaken by one of the members from the city of Harrisburg.

However, it is the pleasant privilege of this Society, whose representative I am, to provide an entertainment program for the State Society. The committee appointed by the Goodno Society, acting in conjunction with the committee of the Board of Arrangements of the State Society, has labored diligently and faithfully to make this feature of the meeting a success.

Harrisburg, from its location and environments, from the fact that it is the Capital City of the Commonwealth of Pennsylvania and the hospitality of its inhabitants, should be an ideal city in which to hold a convention.

Having been initiated some time since into the Ancient Arabic Order, Nobles of the Mystic Shrine, I can testify as to the strenuosity of *their* methods of entertainment; only those of you who have travelled the "hot sands" of the desert and have had personal interview with the Illustrious Potentate of Zimbo Temple, William F. Richardson, will realize how refreshing are such interviews.

I understand the city proper is not given to such antics. Certainly the Goodno Homœopathic Society contemplates nothing so arduous or exciting as an introduction to the celebrated Arab Patrol. We wish we could. We are sure you all, possibly, barring the ladies, would heartily enjoy it

We realize, however, the exacting, arduous and endless duties that beset the life of the conscientious practicing physician; we know that all of us feel the necessity for these State Society meetings, where we meet a larger circle of professional friends than is afforded by our local society and where we come in contact with men of wider experience to discuss, and to hear discussed, the best methods of preventing and treating the numerous ills that beset the human race.

The busy practitioner leaves his active field of practice and comes here, not to take a much needed rest, but to equip himself the better to fight against disease when he returns.

It is a healthy sign when man realizes the necessity for improve-

ment. The homœopathic physician, must especially realize that he handles in his law of cure a delicate instrument, and while he believes thoroughly in its efficacy, he also is thoroughly aware of the fact that to properly use that weapon requires a skill such as is only possible to the intelligent, conscientious, hard working physician.

The observant physician must especially notice the increased attention that is being paid to sanitary science. The laity as well as the profession, are awakening to the necessity of preventing as well as curing disease. Someone has said, "There is more thought today about questions which concern a common humanity than at any preceding time in the world's history."

This is especially true with respect to the Commonwealth of Pennsylvania, and the health of its inhabitants. While the millennium is, doubtless, very far away so long as each year marks an advance and not a retrograde movement, we have reasons to feel gratified.

The Goodno Homœopathic Medical Society is thoroughly aware of the fact the physician comes here to improve his knowledge of medicine and surgery and not for social enjoyment. It believes he will, therefore, appreciate the more the necessity of a little light entertainment on the side, as it were.

It has endeavored, in its modest way, to fill this breach. In the name and in behalf of that society, it is my great pleasure to bid you welcome.

The President, W. F. Edmundson, M. D., next delivered the

ADDRESS OF THE PRESIDENT.

Fellow Members of the Homœopathic Society of the State of Pennsylvania:

Before proceeding, I wish to thank you for the happy privilege of serving as your president. If in any way I fall short of your expectations, I assure you that, at least, it will not be because I am either unappreciative of the honor conferred or unmindful of the responsibility assumed.

The past several years have been stirring and significant ones in the history of medicine. New and revolutionary laws of treatment have been promulgated and quickly won followers, while older ones, nurtured through years of toil and painstaking research, have been

denied and forsaken by their hitherto most eminent disciples. But amid all this confusion and apostasy nothing has developed, nor has science made any discovery that tends, in even the least degree, to weaken our faith in Homœopathy. In fact the reverse is true, and if we will carefully consider the signs of the times, I am sure we must agree that the formal recognition and ultimate triumph of our therapeutic methods are present probabilities, conditioned as to time and degree only upon the wisdom and vigorous loyalty with which we grasp the unparalleled opportunities now presented to us.

Theory after theory, system after system, have been put forward by the dominant school, only to be tried, found wanting and replaced by others, until to-day a large number of their most active practitioners are, so far as drug therapy is concerned, out and out agnostics. And they are outspoken about it. The attitude of the rank and file finding expression in the words of their leaders. Dr. Osler's latest dictum is: "He is the best physician who knows the worthlessness of most drugs." Dr. Billings, in his address as president of the American Medical Association in 1903, used these words: "Drugs, with the exception of quinine in malaria and mercury in syphilis, are valueless as cures." Dr. Musser, two years later, from the same chair, said: "One sees less and less of the use of drugs." And these are the words of adherents of a school of medicine that has behind it hundreds of years of clinical experience.

But where are they turning in their confusion and doubt? Let me answer by reminding you that they have eventually acknowledged the dual action of drugs, the single remedy, the minimum dose, and the wisdom of the practice of regulating the repetition of the dose in accordance with the intervening period of improvement. Furthermore, thanks to the opsonic theory, the totality of symptoms, both subjective and objective, to which Hahnemann attached such importance, are being considered by them as never before. As an indication of their interest in this subject, note the following excerpt from the Lancet: "The mistake is too often made, both in pathology and medicine, of concentrating the attention on the local effects of the disease to the exclusion of the general disturbance, of the which, they are but the expression, with the result that the treatment is likely to be more symptomatic than rational." I could go on multiplying such evidence, but it is not necessary. The fact that the advance guard of scientific and medical men are on the verge of rediscover-

ing Homœopathy is a matter of common knowledge among us. The more scholarly thinkers of the dominant school, seeing this handwriting on the wall, have failed to give credit where it is due, but rather they seem to be trying in every way possible to hit upon some plan for meeting the inevitable without accepting its consequences, of appropriating the law of cure as promulgated by the master, Samuel Hahnemann, without recognizing Homœopathy. Though in all fairness we must concede to such men as Von Behring, Boucher, Cabot and Wright the distinction of a more honorable and open course.

The question now arises, how are we to meet these cloaked advances of the dominant school? The over-hasty, the over-conciliatory venture to suggest amalgamation. But amalgamation implies, and we would demand, formal recognition of Homœopathy, and it is very evident that at this time we can hope for no such concession without which this so-called "amalgamation" amounts to nothing more than absorption. If we give over our separate societies, journals and hospitals, what pledge or assurance have we that the essential work of propagating our law of cure will be continued? None, and presently we can hope for none, from a school of medicine whose therapeutic practice now bespeaks confusion, and which believes not at all. When Homœopathy is taught in every university and medical college in the country and practiced in every village and city, and Hahnemann is given his rightful place among the immortally great, the suggestion of amalgamation may be well considered, but until that time arrives it should not even be tolerated. We take this position not from any motive of self-aggrandizement, or because of any inherent animosity toward the dominant school, but because to hold otherwise would be a breach of our faith toward humanity and a desecration of the memory of our fathers in the faith.

But our arguments against amalgamation do more than refute it, they make clear the alternative, point out the plain path of duty. We are a body of men, a profession, pledged to the service of alleviating and conquering disease among mankind; we have a law of cure which we steadfastly believe, and have proved to be the most efficacious for that purpose, and until that law is universally accepted and generally practiced, we must continue to labor as its organized missionaries with all the strength and resource at our com-

mand. In short, we must adopt an aggressive missionary policy. To a consideration of several of the details of such a policy, more particularly important because of their local pertinence, I intend to devote the rest of the time at my disposal, and to that end I ask a further lease of your patience.

Missionary work, like charity, should begin at home. If we are to realize the full measure of our effectiveness we must be a united, consistent body with every man in line. I know the subject of membership has been discussed to the point of weariness, but its importance warrants further and repeated consideration. It is important in the first place as a sure indication of the practical worth of our professed earnestness of purpose. As long as there are practicing homœopaths within the State but without the Society, and as long as we meet them and rub shoulders with them in the daily course of our professional and social life, and fail to exert our every effort to enlist them in our ranks, it is idle for us to protest loyalty to our cause. If we fail in a task that literally thrusts opportunities for its accomplishment upon us, how dare we presume to offer ourselves for service more exacting and demanding greater self sacrifice?

Homœopathy, organized, can do all things needful; homœopathy unorganized, can do nothing, or next to nothing. If the truth of this statement, and its truth is so evident that I do not pause to discuss it, can once be brought squarely before the minds of non-members, they must perforce declare themselves. They are for us or against us, and if they are for us they must take their places as active members of this Society, for in the light of present conditions the idea of a passive loyalty is both paradoxical and ridiculous. In closing the subject I want to heartily thank and commend the Membership Committee for the able and effectual work done by it during the past year, and to urge upon its members the necessity of continuing their efforts with unabated vigor.

But we must go still further afield. The problem of supplying our colleges with students is crying aloud for attention. During 1907 and 1908 there were two thousand less students in the colleges of the dominant school, and in our colleges over two hundred less than in the preceding two years. Now the dominant school, overcrowded as it is with its practitioners jostling each other in the open country, the villages and cities, and with an average income of less than $800 per man, can well afford and welcome such a reduction as a

benefit to the profession at large. But not so with us. Communities by the hundred, not only throughout this great Commonwealth, but the whole country at large, are calling upon us to send them practitioners of our school, and it devolves upon us to right quickly devise means for supplying their demands.

If you will refer to transactions of the American Institute for 1905-6 and 7, you will find the question has engaged the attention and thought of some of the brightest minds of our profession. That its importance merits such distinguished consideration cannot be questioned. Our colleges are the bulwarked nurseries of our faith, and their graduated output is the most certain guaranty of our continued existence as a school of medicine. To maintain our existence we must at least keep that output up to an even level. But our duty and ambition extends beyond mere existence to growth; and to grow we must see that our colleges not only maintain, but increase their present average enrollment. What will it avail us to educate the public in Homœopathy through the aid of literature and other instrumentalities if we have not the men to send out and substantiate our claims by the proof of actual practice? The question answers itself. And it is a fact patent to all that one earnest, well equipped practitioner can do more in a community to win the laity, enlist students in our ranks, and generally extend our influence than all the educational literature that was ever penned.

But there is no need to further plead the grave importance of this problem, for that is admitted. But we are concerned with the best means for arriving at its solution. To that end much can be done by the individual. We should make it a practice to interview the young men and women of our clientele who are in college or high school, and those among them who express an inclination or desire to study medicine, should be influenced in every way consistent with dignity and fairness, to enroll themselves in a homœopathic institution, it always being provided that the prospective student gives evidence of temperament and intellectual fitness. But as the entire field cannot be covered in this way, I suggest that your president be authorized to appoint a committee to supplement the work of individuals. This committee should make a careful study of the situation, prepare literature setting forth the advantages of studying Homœopathy, and see that this literature is thoroughly yet quietly distributed

in promising quarters, with particular attention given to the high schools and colleges of the State. The literature prepared might well be used by the individual in his work. But whether we are to depend upon individual effort or the concerted work of committee, is not so important as to determine to be about it immediately, and I seriously advise that some definite plan of action be authorized before adjournment.

The large foreign born population, composed principally of Italians, Hungarians and Russians, developed in our State by the large industrial corporations, offer a field for our endeavors that seems to have been neglected by us. This field is not so unpromising as it would at first appear to be. For instance, there is a young practioner in Pittsburgh, who, residing near a large settlement of Italians, has built up a large practice among them, and he reports that they are sympathetic, appreciative and financially responsible. But with so many opportunities among our own people awaiting them, we can hardly expect that our young men will take up practice among the peoples under discussion. However, that may be, there is a surer and better way of reaching them, namely, through their own countrymen. Despite the average lowliness of their condition, there are among them a class of young men and women who are not only ambitious, but, in addition, intellectually able to a notable degree. If we could reach this latter class, interest them in our work, enroll them in our colleges, and then, having properly educated them, send them out to minister to their countrymen, we would be doing a service to our cause, the Commonwealth and to a class of people that I fear is sadly in need of just such attention.

Before leaving the subject of our colleges, I wish to call attention, for the purpose of criticism, to the reprehensible practice affected by certain homœopaths of sending their students to the colleges of the dominant school. When we protest against this practice we are met with the assertion that the colleges of the dominant school give a broader education and that their diplomas are worth more. Such is not the case. Our graduates not only maintain a high standard in the State board examinations, but also invariably constitute a majority on the honor roll. A knowledge of our materia medica is the keystone of an homœopathic education, and our young men should be sent where that part of their education is most likely to receive careful and earnest attention. This Society should express in no

uncertain terms its displeasure with those who follow any other practice in regard to their students.

The medical profession at large is giving an increasing amount of its attention and energy to laboratory research work in the sciences collateral to medicine. We yield to none in recognizing the importance of this work, and there are those among us who have contributed notably to its advancement. But when the place is reached where enthusiasm for the theoretical investigation of the cause of disease threatens to overshadow interest in the study and practice of the laws of cure, it is time to call a halt. The student with his natural lack of proper perspective is most susceptible to such an exaggerated tendency, and care should be taken to guard him against it. The faculties of our colleges, while keeping their respective institutions, both as to curriculum and equipment, abreast of the advance in the collateral sciences, should always keep in mind that fact that their first duty is the training of physicians, healers of the sick and not abstract scientists, and to that end should give particular attention to the science and philosophy of our therapeutics, impressing upon the students the importance of this subject and refusing to graduate anyone not thoroughly grounded in materia medica.

Have you ever stopped to think what helpful work this Society could do in the matter of the verification of the symptomatology of our materia medica if the work were taken up in a systematic way? The best results would probably be obtained by a duly organized college of provers, who would map out, oversee and classify the results of each year's work. In this way the important task of reproving old remedies and introducing new ones could be carried on in an authoritative manner, to the great aid of the general practitioner.

But it would be impossible for me to consider at this time, even in outline, the many problems and the splendid opportunities that are before us, and even if I were disposed to attempt such a task I would be deterred therefrom by the able and exhaustive efforts toward that end on the part of my late predecessors. I shall rest well content if I have in any way aided your deliberations, or in the least degree awakened your enthusiasm or strengthened your purpose to speedily consummate the work of bestowing upon all people, everywhere, the blessing of Homœopathy, the which, I firmly believe to be the most efficient weapon at the disposal of humanity in the warfare against its arch enemy, Disease.

On motion, the address of the president was referred to a committee consisting of Drs. B. F. Betts, A. P. Bowie and Charles Platt, who, later presented the following:

REPORT OF THE COMMITTEE ON PRESIDENT'S ADDRESS.

From the cordial approval accorded the President's Address your Committee feel that the position taken in opposing the amalgamation of the medical profession into one body is heartily supported by the members of this Society, and that the relinquishment of our State, County and Local Medical Organizations—our Journals, Colleges and Hospitals, and other means of publicly teaching or demonstrating the efficiency of our law of cure, would result in the annihilation of Homœopathy, and require the renunciation of a faith we have publicly avowed in a method of treatment that has been abundantly demonstrated as pre-eminently efficient for more than a century.

The suggestions made with the object of awakening more energetic effort to direct properly qualified men and women to the study of medicine in our homœopathic colleges in order that they may become efficient practitioners of our system of therapeutics deserves oud earnest support, and your committee recommends the following resolutions for adoption by this Society:

Resolved, That a Committee of three be appointed by the President, whose duty it shall be to solicit from the homœopathic physicians of the State the names of qualified men and women of their acquaintance, or living in their vicinity, who may be interested in medical science and inclined to pursue a course of medical study in our homœopathic colleges.

Resolved, That this committee shall be empowered to prepare literature, setting forth the advantages to be derived from the study and practice of homœopathic therapeutics, and to distribute the same amongst pupils of schools and colleges, and to associations for the advancement of the interests of young men and women throughout the State, and to homœopathic physicians and others who may desire it.

Resolved, That this committee shall confer with, co-operate with, and assist the authorized organizing agent of the American Insti-

tute of Homœopathy in every way that is practicable in the effort to advance the interests of Homœopathy in all the States.

Resolved, That a consideration for the best interests of the homœopathic profession in the future impels us to discourage the practice of some of its members in sending students to other than homœopathic medical institutions, so long as they denounce and ignore our system of therapeutics.

Your committee further recommends homœopathic colleges, hospitals and other institutions to avail themselves of opportunities afforded in the State capital building, Department of Public Education, etc., to have presented for the inspection of the public, photographic pictures, models, charts, etc., illustrating the means, methods and facilities they may possess for carrying on their educational and charitable work, as is now done by other similar organizations.

B. Frank Betts, M. D.,
A. P. Bowie, M. D.,
Charles Platt, M. D.

On motion the report was accepted and the President instructed to carry out the recommendations made in his address and in the committee report. He thereupon appointed the following committee: Drs. J. H. McClelland, W. B. Van Lennep and W. A. Seibert.

REPORT OF THE BOARD OF TRUSTEES.

Your Board of Trustees have conscientiously attended to all of the details of their office with fidelity and promptness. There were four meetings held since our last report; one at Pittsburgh, one at Philadelphia, one at Reading, and one at Harrisburg. At the first of these meetings, a very careful audit of the society's books was made, extending backward to the time of the previous audit; everything was found to be correct. The Membership Committee returned to the treasury of our society, $69.79 of the money previously appropriated for the expenses of that committee; and at the January meeting, three hundred dollars was again set aside for their use in the work. The Legislative Committee being urgently in need of funds, three hundred dollars was also placed subject to their order. At the last meeting of our society, at Pittsburgh, a motion was passed selecting Harrisburg as the place for the 1908 meeting. At the same time, it was decided that the State Society should

voluntarily bear its own expenses. Consequently, and in accord with this resolution, a committee of three members of the board was appointed to act in conjunction with the committee from the local society, in arranging the various details of this meeting.

O. S. Haines, M. D.,
Secretary.

George B. Moreland, M. D. Chairman, presented the following

REPORT OF THE COMMITTEE ON ORGANIZATION, REGISTRATION AND STATISTICS.

September 22, 1908.

To the Homœopathic Medical Society of the State of Pennsylvania:

Your Committee on Organization, Registration and Statistics presents its annual report for publication. A list of the local societies and of the hospitals and dispensaries under our control is given, and a detailed statement of data obtainable concerning them is placed at your disposal.

We desire, through the medium of this report, to thank all who have answered our requests for information.

Respectfully submitted,

Geo. B. Moreland, M. D.,
Chairman.

HOMŒOPATHIC MEDICAL SOCIETIES

NAME.	PRESIDENT.
Alumni Association of Hahnemann Medical College of Philadelphia.	L. B. Swormstedt, M. D., Washington, D. C.
A. R. Thomas Club of Philadelphia.	P. H. Ealer, M. D., Philadelphia.
Blair County Homœopathic Medical Society.	W. R. Palmer, M. D., Hollidaysburg.
East End Doctors' Club.	J. H. McClelland, M. D., Pittsburgh.
Germantown Homœopathic Medical Society.	George W. Smith, M. D., Philadelphia.
Goodno Homœopathic Medical Society.	
Hahnemann Club of Philadelphia.	A. Korndoerfer, Sr., M. D., Philadelphia.
Homœopathic Medical Society of Allegheny County.	F. S. Sawers, M. D., Hazelwood.
Homœopathic Medical Society of Beaver County.	Dr. Sutton, New Brighton.
Homœopathic Medical Society of Berks County.	D. C. Kline, M. D., Reading.
Homœopathic Medical Society of Chester County.	S. A. Mullin., M, D. West Chester.
Homœopathic Medical Society of Delaware County.	
Homœopathic Medical Society of Delaware, Chester and Montgomery Counties.	Wm. C. Powell, M. D., Bryn Mawr.
Homœopathic Medical Society of Erie County.	A. Girard Cranch, M. D. Erie.
Homœopathic Medical Society of Lackawanna County.	G. M. De Witt, M. D., Scranton.
Homœopathic Medical Society of Lebanon County.	W. T. Bruce, M D., Lebanon.
Homœopathic Medical Society of Luzerne County.	Seth Kistler, M. D. Nanticoke.
Homœopathic Medical Society of Montgomery County.	
Homœopathic Medical Society of Philadelphia County.	T. H. Carmichael, M. D., Philadelphia.
Homœopathic Medical Society of Schuylkill County.	
Homœopathic Medical Society of the 23d Ward, Philadelphia.	Russell T. Hart, M. D., Philadelphia.
Homœopathic Pharmaceutical Association of Pennsylvania.	F. J. Slough, M. D., Allentown.
Lehigh Valley Homœopathic Medical Society.	
North Penn Medical Society.	S. C. Moyer, M. D., Lansdale.
Organon Medical Club of Chester.	R. P. Mercer, M. D., Chester.
Oxford Medical Club of Philadelphia.	C. W. Simmons, M. D. Philadelphia.

OF THE STATE OF PENNSYLVANIA.

Secretary.	Organized.	Meetings.	Number of Members.	Dues.
W. D. Carter, M. D., Philadelphia.	1857	Annually	1821	
Albert A. Norris, M. D., Philadelphia.	1888	Monthly.	21	
D. M. Roudabush, M. D., Altoona.	1901	"	15	$1.00
C. I. Wendt, M. D., Pittsburgh.		"	17	1.00
William H. A. Fitz, M. D. Philadelphia.	1883	"	158	10.00
Thomas S. Dunning, M. D., Philadelphia.	1872	"	11	
H. S. Nicholson, M. D., Pittsburgh.	1864	"	90	2.00
Wm. Raymer, M. D., Beaver Falls.	1883	"	10	1.00
Margaret Hassler Schantz, M. D., Reading.	1896	"	17	1.00
L. Hoopes, M. D., West Chester.	1898	Bi-Monthly.	19	1.00
Isaac Crowther, M. D., Chester.	1858	Alternate Months	74	1.00
Lucy H. Black, M. D.	1891	Monthly.	18	3.00
R. White, M. D., Scranton.	1895	"	22	
F. E. Bamberger, M. D., Lebanon.	1904	"	17	3 00
Oliver K. Grier, M. D., Wilkes-Barre.	1899	Bi-Monthly.	21	
Percy A. Tindall, Philadelphia.	1866	Monthly.	296	1.00
John D. Boileau, M. D., Philadelphia.	1881	"	29	1.00
E. P. Anshutz, M. D , Philadelphia.	1881		13	
D. M. Landis, M. D., Perkasie.	1908	"	7	None
D. P. Maddux, M. D., Chester.	1887	"	14	
Lewis B. Griffith, M. D., Philadelphia.	1885	"	17	$5.00

HOMŒOPATHIC MEDICAL SOCIETIES

NAME.	PRESIDENT.
Philadelphia Medical Club.	Clarence Bartlett, M. D. Philadelphia.
Philadelphia Medical and Surgical Society.	
Philadelphia Society for Clinical Research	Percy A. Tindall, M. D., Philadelphia.
The Clinico-Pathologic Society of Philadelphia	J. C. Guernsey, M. D., Philadelphia.
The D. P. Maddux Clinical Club, Chester.	J. R. T. Gray, M. D., Chester.
West Branch Homœopathic Medical Society	W. H. Follmer, M. D., Milton.
Wm. B. Van Lennep Clinical Club.	
Women's Homœopathic Association of Pittsburg.	Millie J Chapman, M. D., Pittsburgh.
Woman's Homœopathic Medical Club of Philadelphia.	Amelia L. Hess, M. D., Philadelphia.

OF THE STATE OF PENNSYLVANIA.

Secretary.	Organized.	Meetings.	Number of Members.	Dues.
Edwin H. Van Deusen, M. D., Philadelphia.	1883	Monthly.		
Ralph Bernstein, M. D., Philadelphia.	1905	"	16	6.00
Theodore J. Gramm, M. D., Philadelphia.	1894	"	91	2.00
R. C. Casselberry, M. D., Chester.	1906	Bi-Monthly.		
E. C. Blackburn, M. D., Williamsport.	1907	Alternate Months	15	1 00
Ella D. Goff, M. D., Allegheny.	1899	Monthly	8	1.00
Margaret C. Lewis, M. D. Philadelphia.	1883	"	12	

HOMŒOPATHIC HOSPITALS

NAME.	LOCATION.	SECRETARY OR EXECUTIVE OFFICER.	Incorporated.	Opened to Patients.
Beaver Valley General Hospital.	New Brighton.	J. F. Murray, Beaver Falls	1894	1895
Children's Homœopathic Hospital.	Philadelphia.	W. Strong, M. D. Philadelphia.	1877	1877
Hahnemann Hospital.	Scranton			
Hahnemann Medical College and Hospital.	Philadelphia.	Wm. G. Foulke, Philadelphia.	1867	1867
Homœopathic Medical and Surgical Hospital.	Pittsburgh.	D. G. Stewart, M. D.	1866	1866
Homœopathic Medical and Surgical Hospital.	Reading.	W. W. Light. Secretary.	1890	1891
J. Lewis Crozer Home for Incurables and Homœopathic Hospital.	Upland.	R. P. Mercer, M. D.	1898	1900
Medical, Surgical and Maternity Hospitals of the Women's Homœopathic Association of Pennsylvania.	Philadelphia.	Mrs. J. W. Thatcher	1882	1884
St. Luke's Homœopathic Hospital.				
West Philadelphia General Homœopathic Hospital and Dispensary.	Philadelphia.	W. D. Culin, M. D.	1904	1905
Woman's Southern Homœopathic Hospital of Philadelphia.	Philadelphia.	Miss A. M. Miller.	1896	1896

HOMŒOPATHIC DISPENSARIES

NAME.	SECRETARY.	LOCATION.
Children's Homœopathic Hospital Dispensary.	Walter Strong, M. D., Philadelphia.	Philadelphia.
Dispensary Women's Homœopathic Association of Pennsylvania.	Mrs. F. B. Skinner, Philadelphia.	Philadelphia.
Eye and Ear Dispensary of the Pittsburgh Homœopathic Hospital.		Pittsburgh.
General Dispensary of the Pittsburg Homœopathic Hospital.		Pittsburgh.
Hahnemann Medical College and Hospital Dispensary of Phila.	Wm. G. Foulke, M. D., Philadelphia.	Philadelphia.
Hahnemann Hospital Dispensary.		
Homœopathic Dispensary of Reading.	H. F. Schantz, M. D., Reading.	Reading.
St. Luke's Homœopathic Hospital.		
West Philadelphia Homœopathic Hospital and Dispensary.	Wm. Hillegas, M. D., Philadelphia.	Philadelphia

OF THE STATE OF PENNSYLVANIA.

No. of Beds.	Treated Last Year.	Cured.	Relieved.	Not Relieved.	Died.	Estimated Value of Property and Grounds	Source of Income.
55	87	65	7	1	14	$ 50,000.00	State aid, Pay Patients and Contributions
130	963	541	142	12	228	210,000.00	Endowment, State aid, Contributions
250	8,740* / 2,618	2,145	135	21	144		State Reveuues, Donations, Board of Private Patients
140	4,277	3,775	404	27	72	1,000,000.00	State of Pennsylvania Board of Patients Contributions
75	501	379	78	4	35	75,000.00	State aid, Pay Patients and Contributions
100	1,053	947	70	15	31	80,000.00	Private State aid and Contributions
37	2,436	417	12	25		34,102.60	State Appropriation, Private Patients and Donations
40	400	312	57	8	23	23,000.00	Contributions

* In emergency ward.

OF THE STATE OF PENNSYLVANIA.

Incorporated.	Opened.	No. of New Patients Last Year.	Treated Last Year.	Prescriptions Last Year.	Out Visits.	Amt. of Funds belonging to Dispensary
1877	1877	7,006	23,834	9,942	504	
1882	1884	4,306	13,085			
1866		1,763	5,188	5,075		
1866		4,352	16,940	11,832		
1867	1867	14,010	71,306		3095	
1890	1887	2,584	4,652	7,236		
	1904	1,748	8,072	473		

REPORT OF THE COMMITTEE ON LEGISLATION.

Mr. President and Members of the State Society:

Your committee met for organization soon after the adjournment of the last meeting of the State Society, and effected such by the re-election of Dr. H. M. Bunting as secretary, and the election of Dr. L. P. Posey as treasurer.

Dr. John J. Tuller very kindly placed his offices at the disposal of the committee, and its meetings were held at that place.

The work of the General Committee was systemized by the formation of three sub-committees, as follows: Publication, Organization, and Medical Practice Acts; an effort being made to hold regular meetings, at least once a month, to which meetings the entire membership of the committee was summoned.

Dr. Wm. A. Seibert was appointed chairman of the sub-committee on Publication; the duties of this committee being to attend to the matter of having articles favorable to Homœopathy, and legislative measures endorsed by the general committee, put before the profession and the general public.

Dr. John J. Tuller was appointed chairman of the sub-committee on Organization, the chief duties of which were to perfect the organization of the profession within the State; but to this committee was assigned the further duty of acting in emergencies that might arise, and to do any missionary work that might be assigned to it.

Dr. A. Korndoerfer, Sr., was appointed chairman of the sub-committee to which was referred all matters affecting medical licensure.

There existing a vacancy on the Board of Commissioners appointed to erect the State Hospital for the Insane at Allentown, caused by the death of Dr. Willard, this committee interceded with the Governor to fill said vacancy, this his Excellency did in a most acceptable way by appointing Dr. John J. Tuller.

It is satisfactory to note in passing, that the recent progress in the erection of the Allentown Hospital has been more rapid, and we will soon have under the care of our school, an institution that will be a credit to it, and one that we hope will add new lustre to Homœopathy.

As a minority school, the various State medical offices being con-

trolled by the old school, we are placed at a distinct disadvantage in initiating medical reforms. We appreciate the valiant work done by Dr. Dixon and his co-workers in the Department of Health, and as individual members have co-operated with him in trying to make those reforms effective; but it cannot be expected that our branch of the profession should appear as prominent in the public mind so long as we are not privileged to share the various executive medical offices; nevertheless, the effort to eliminate tuberculosis, typhoid fever and other preventable diseases, the securing of pure food, and pure drug laws that will be rational and effective, the prohibition of the sale of harmful nostrums, especially those containing the drugs that enslave, as well as the prevention of the pollution of water supplies, and the proper disposal of sewage; all these matters are of as deep and vital interest to the members of our school, as they are to the members of the dominant school, and to the public at large; but, as I indicated, we have not as prominent place in the public eye, because the members of the other school have exclusive executive control.

It would be amusing, were it not a serious matter, to view the recent attitude of the dominant school of medicine when they assume and assert that at the present time there is no such thing as a "School of Medicine;" the statement is quite true, in so far as the existence of a common ambition by all liberally educated medical men to advance medical science to the highest attainable point, and to appropriate to their own use scientific truth from every source, when clinically verified.

If the members of the old school would exhibit in actual practice that catholicism they profess in theory, there would be no need of the existence of "Schools of Medicine."

The colleges of our school teach all that is taught in theirs, plus the additional teaching of homœopathic therapeutics; the teaching of their therapeutic methods is not done evasively, or in any spirit of adverse criticism, but in order that the student may have a working knowledge of all methods; if they would be equally liberal and non-sectarian, and add a chair of Materia Medica and Therapeutics in which the administration of drugs, according to the law of "Similia" had a fair and adequate presentation, this unfortunate, but, at present, needful division would be forever done away with.

So long as men are barred from hospital privileges, so long as ethical relationship is governed, not by the mental and moral worth of the practitioner, but by the source from which he received his degree, so long as institutions like the University of Pennsylvania refuse to admit men to enjoy post-graduate facilities, solely on the ground that the man has received his instruction and degree in an institution that taught Homœopathy, we must look with distrust upon their expressions of liberality, and their desire for the unity of the medical profession.

The attitude of the old school concerns itself more with the *source* from which a man received his instruction, rather than the fact of the existence of adequate qualifications.

Changing names does not alter conditions, any more than the head of the ostrich hidden in the sand conceals his whole body.

We are not so much concerned about the preservation of the name of "Homœopathy," as we are concerned that its practical contribution to therapy shall have its proper and permanent place in every curriculum of medical instruction, and until that is done, we must be tireless in our efforts to foster and advance all institutions and organizations that have for their object the promulgation and development of the law of "Similia."

It is interesting to note that the Committee of the American Academy of Medicine, to whom, in June, 1907, was referred the drafting of a bill that might serve as a pattern and model for all the States, in their report last June, at Chicago, repudiated many of the features of the Bowman bill, that the dominant school tried to force upon the profession and the public.

We may recall that the Bowman bill eliminated all examinations upon Materia Medica and Therapeutics. Permit us to quote the report of the Committee of the American Academy of Medicine upon this point:

"The opinion sometimes suggested of omitting from the test certain subjects because of diverse teachings, assuming if the candidate be fitted in the other subjects, it can be taken for granted his college has fitted him in the topics omitted as well, is open to objection. It will be difficult to make clear to any one outside of the profession that, should the college be trusted in those subjects, apparently the most important, the college may be safely intrusted to certify to the rest of the training as well."

It is worthy of note that Section 1 of the bill reported to the Academy which read, "the board shall be composed of nine members, not more than four members thereof shall be at any one time members of one chartered State medical society," was vociferously voted down.

The fact that laws governing the right to practice medicine differ in almost every State, the fact that a year's hard work by a committee of most competent men of the American Academy of Medicine failed to evolve one that was satisfactory to the Academy, demonstrates the exceeding difficulty of framing a law that will be just and satisfactory to the entire profession and the public.

The law as it stands in Pennsylvania cannot be upheld as a model; it does not provide as high an educational standard as it should, it fails in the matter of reciprocity, there is inadequate provision for the punishment of flagrant and repeated violators of the act, and other imperfections that are apparent; these evils might have been corrected by a bill framed by a committee from the Pennsylvania Medical Society, that met the approval of your committee; but they saw fit to withdraw that bill, and substitute without notice, a measure objectionable to the minority schools, as well as containing certain features that, as stated, were later repudiated by the American Academy; this substitute, meeting with well deserved defeat.

Your committee have given thoughtful study to the various "Practice Acts" of this and other States, and have critically reviewed the proposed new legislation suggested by the American Academy of Medicine and the American Medical Association; and while recognizing much they can approve even in this most recent emanation from the councils of the old school, nevertheless, feel that as a law it would still leave to the future the correction of the real defects in our present system of medical education and licensure, which, indeed, it was designed to cure.

Therefore your committee feel that in the present unsettled state of the professional mind, in matters legislative, wisdom would dictate that we should be empowered to act in accordance with its best judgment in any emergency which may arise during the coming session of the Legislature of the State of Pennsylvania, rather than be bound by specific instructions that might hamper us in our efforts to secure to every true physician his full right to practice

medicine or any of its branches, unrestricted by any provisions, save a full and sufficient education in all the fundamental studies recognized by the American Institute of Homœopathy and other progressive associations as constituting a competent medical education—such being with moral fitness, the only test of which the law should take cognizance.

Respectfully submitted,

D. P. Maddux, M. D.,
Chairman.

On motion, the report was accepted and referred to the Committee to which the Address of the President was referred. This committee, later presented the following:

REPORT OF THE COMMITTEE ON REPORT OF THE COMMITTEE ON LEGISLATION.

The committee to whom the Report of the Legislative Committee was submitted believe that they express the sentiment of the members of the Homœopathic Medical Society of the State of Pennsylvania in commending the untiring efforts and earnest work of the Legislative Committee during the past year, and they recommend the publication of such portions of their report as the said Legislative Committee may deem necessary for distribution, to the members of the profession.

Your committee also recommends the adoption of the following resolution by this Society:

Resolved, That the Legislative Committee be empowered to act in accordance with its best judgment in any emergency which may arise during the coming sessions of the Legislature of the State of Pennsylvania.

B. Frank Betts, M. D.,
A. P. Bowie, M. D.,
Charles Platt, M. D.

On motion, the report was accepted, the resolution embodied in it adopted and the committee discharged.

In the absence of the Censors the President appointed Drs. B. F. Betts, W. H. Holsberg and H. M. Bunting Censors pro tem.

REPORT OF THE COMMITTEE ON MEMBERSHIP.

Harrisburg, September 23, 1908.

The Membership Committee of the Homœopathic Medical Society, State of Pennsylvania, beg leave to submit the following report:

As far as possible your committee has endeavored to carry out the work begun by the Membership Committee of 1906-1907. They have been profuse in their words of praise regarding Homœopathy, which they have embodied in letters and private mailing cards, which have been sent to every homœopathic physician in the State of Pennsylvania, whether members of our Society or not, and whether in harmony with our motives or not.

This literature has been sent at frequent intervals during the entire summer, and we feel has been most productive of good in creating a new spirit of homœopathic enthusiasm and activity. The stringent financial condition has prevented many from accepting membership at this time, and while we have not been able to turn in as many members as were turned in last year, we feel that the next committee will be able to reap the harvest of the seed which we have thus far sown.

There has not been a member of this committee who has not given much of his personal time in calling upon the physicians personally, and attending the various county society meetings and gatherings of the homœopathic physicians throughout the entire State. Personal letters have as well been written by each and every member of this committee to the same end.

The various members of this committee in going over the membership list have reported that they have found various names upon this list of physicians, who are not homœopathic and never have been; they further report that the list needs careful revision, as there are many physicians who have since died, and whose names still remain upon the list.

The committee begs leave to further report that special attention is needed in Philadelphia district, as there are, at least, 300 homœopathic physicians in that city, some of whom are members of the Hahnemann Medical College Faculty, who have apparently lost all interest in their State Society and so far have refused to indorse it by taking membership in said society.

We would further suggest that the incoming Membership Committee can be greatly aided in its work if each member of this Society assumes the responsibility of seeing to it that all homœopathic physicians in his immediate vicinity, not members of the State Society, are approached and earnestly urged to become members of this Society.

Respectfully submitted,

W. A. Stewart, M. D.,
Chairman.

REPORT OF THE DELEGATES TO THE INTERSTATE COMMITTEE OF THE AMERICAN INSTITUTE OF HOMŒOPATHY.

At the meetings of the Interstate Committee held during the session of the American Institute of Homœopathy, at Kansas City, in June, reports were received from the several States in regular order in which reference was made to the work undertaken or accomplished during the past year by the various State Legislative Committees and similar organizations intended to promote the interests of Homœopathy in this country.

In those States in which there are but comparatively few homœopathic physicians there is still considerable apathy manifested by members of our profession and, therefore, there has been but little co-operative work of this character accomplished; but in most of the States members of our profession have been active and united in their efforts to promote the interests of the profession. But more zeal in this respect is needed in several localities.

It was the opinion of the Interstate Committee that continued effort is necessary to effect a thorough organization of our profession in all the States for co-operative work and mutual advancement, and a committee was appointed to consider and report upon methods intended to secure more efficient co-operation amongst the State organizations and the National Association when necessary.

B. Frank Betts, M. D.,
Aug. Korndoerfer, M. D.

On motion, the report was accepted.

REPORT OF THE NECROLOGIST.

Mr. President and Fellow Members of the State Society of Pennsylvania:

The forty-fifth session of this Society must not pass without some honorable mention of those, who, up to the time of departure, have labored long and well with us, and who have earned a just reward from their labors. It has been my sad duty to record the deaths of many of our prominent workers and advisers since becoming your Necrologist and while sad it must be, I offer to you as a matter of record, the following:

Charles Mohr, M. D. Dr. Mohr was born in Philadelphia, May 2d, 1844, and died October 31st, 1907.

He graduated at the Hahnemann Medical College in 1875, and attached himself immediately to the out-patient department, serving at its head for seven years.

In 1882 he was elected a professor of the college and continued a member of the faculty until his death.

Soon after the reorganization and removal to its present location, Dr. Mohr became a member of the Corporation of Trustees of the Hahnemann Medical College and Hospital, and a member of the medical staff of the hospital.

In 1901 he was elected to a position his qualifications eminently fitted him for and which was created especially for him; that of General and Medical Director of the Hospital, and was appointed the representative to this honorable Association upon its organization.

After Dr. Mohr had completed his general education he entered upon a mercantile life, and soon occupied a position of trust and responsibility in a large importing and manufacturing establishment, where he received a training in business habits and experience that proved of immense value to him in his successful career in a professional life.

A man capable of an inendable amount of work, he delighted to personally attend to the slightest details and thus secured an absolute mastery of every situation. With these traits and advantages he became an invaluable aid to the developing and managing of the entire hospital department.

His career was a success not only personally, but in his position to the profession which he greatly loved, and to the college and hospital with which he was connected during his entire professional life.

An intelligent and active worker in all the various societies and organizations of the profession he has been no small factor in elevating it to its present honorable position.

His genial manner and willing hands soon brought him to a leadership in all movements for organizing, sustaining and enlarging of the various departments of the hospital and dispensary.

A broad minded man with a charitable nature, studious habits and a love for work his passing has left a vacancy that will be hard to fill.

His death occurred suddenly, so suddenly as to seem to be instantaneous, while he was on the street upon an errand for the institution he loved so well.

Dr. Harry J. O'Donnell, aged 37, son of the late Captain Anthony O,Donnell, died at his home in Pittsburgh, September 14th, 1908, after an illness of several months with heart trouble. Dr. O'Donnell graduated in 1896, from the Cleveland Homœopathic Hospital, and joined the State Society in 1907.

Doctor H. A. Klock, of Mahanoy City, died February 1st, 1908, at the age of 60 years. He was one of the most prominent homœopathic physicians in Schuylkill county, graduating from Hahnemann Medical College in 1878. He joined the State Society in 1905.

TREASURER'S REPORT.

To the Officers and Members of the Homœopathic Medical Society of Pennsylvania:

The undersigned Treasurer respectfully submits the following report of receipts and disbursements for the fiscal year ending September 21, 1908:

DR.

1907.			
Sept. 16.	To balance	$1,274.65	
1908.			
Sept. 21.	To annual dues collected	1,494.00	
			$2,768.65

CR.

1907.				
Sept. 17.	By order, No. 74, paid E. M. Gramm, for Misc. postage, Ex., etc.	$47.35		
" 17.	Postage, addressing, etc., programs	27.90		
" 17.	Traveling expenses	50.00		
" 17.	Stenographer assisting getting out Transactions..	50.00		
			175.25	
" 17.	By order, No. 75, paid E. D. Goff, for stamped envelopes		13.85	
" 17.	By order, No. 76, paid E. D. Goff, for travelling expenses		50.80	
" 17.	By order, No. 77, paid "Examiner," for printed postal cards		14.50	
" 17.	By order, No. 78, paid Van Fleet & Son, 1,000 envelopes.....		3.50	
Nov. 30.	By order, No. 79, paid J. McEldowney, M. D., reporting proceedings		100.00	
1908.				
Feb. 26.	By order, No. 80, paid "Examiner," for printing Transactions		675.73	
Mar. 11.	By order, No. 81, paid L. P. Posey, M. D., for Legislative Com.		300.00	
June 27.	By order, No. 82, paid Ralph Bernstein, M. D., for Membership Com.		300.00	
Sept. 21.	By balance on hand		1,135.02	
				2,768.65

Respectfully submitted,

ELLA D. GOFF, M. D., *Treasurer.*

In view of the fact that Dr. George B. Moreland was absent from

his duties by reason of illness, a motion was made instructing the Corresponding Secretary to send a telegram to Dr. Moreland, expressing the sympathy of the Society in his affliction, and the hope that he would speedily be restored to health. These instructions were carried out.

A communication was received from Dr. H. D. Rosenberger, of Manheim, stating that he has been stricken with paralysis agitans, and that he cannot longer perform the duties of active practice. On motion he was instructed to be carried on the active list of the Society without the payment of any further dues.

A communication was received from Dr. M. J. Holben, of Slatington, stating that he had been ill for over two years in consequence of exposure during a blizzard. He asked to have the dues for the years 1906, 1907 and 1908 remitted. On motion the dues for the years mentioned were remitted owing to his disability.

Dr. D. P. Maddux presented his resignation as a member of the Committee on Legislation. The President thereupon appointed Dr. J. J. Tuller Chairman of the Committee. He also appointed Dr. E. S. Snyder a member of the Committee.

Dr. B. Frank Betts offered the following resolution:

That the Homœopathic Medical Society of the State of Pennsylvania places itself on record as being in favor of a public recognition of the fact that the wilful transmission of disease is a crime, and that this applies to venereal affections as well as other infectious diseases.

Seconded and carried.

Dr. A. P. Bowie offered the following resolution, which was, on motion, adopted:

Resolved, That at all future meetings of this Society a popular address on Homœopathy be given to the laity, as one way to further the progress of our school of medicine, and that local and county societies be recommended to follow a similar method.

Dr. J. H. McClelland offered the following amendment to the By-Laws—amend Article V, Section 7, as follows: Strike out all of the Section following the words "make a report at the annual session of the Society," and insert, "the Trustees shall have power to draw upon the Treasury for any legitimate expenses of the Board, or to meet any extraordinary expense deemed necessary by a majority vote of the Board, and such moneys shall only be paid upon a writ-

ten order on the Treasurer of the Society, signed by the Chairman and Secretary of the Board of Trustees."

Dr. F. F. Massey presented the following resolution, which was, on motion, adopted:

Resolved, In view of the fact that Homœopathy is a science, just as much as chemistry or anatomy, and should form a part of the knowledge of every scholar as much as algebra or history; and, furthermore, as it forms an actual part of the teachings of certain universities, it should occupy a place upon the curriculum of the course of the Society for the Extension of University Teaching; therefore, be it

Resolved, That the President appoint a committee, with power to arrange with the proper party or parties connected with said Society. Said Committee to consist of the Trustees of the Homœopathic Medical Society of the State of Pennsylvania and three other members appointed by the President, to serve for one year. This Committee is to hold its first meeting during the month of October of this year, subject to the call of the President, and to report at the next annual meeting of this Society. A quorum of said Committee shall consist of three persons.

The President appointed as the Committee Drs. F. F. Massey, W. A. Stewart and T. H. Carmichael.

Dr. F. F. Massey presented the following resolution, which was, on motion, adopted:

Be it resolved, That Dr. Emma T. Schreiner and two other members of this Society be appointed a committee with power to act, to consider the best method of improving social conditions, sexually, by preparing a paper for broadcast distribution among physicians of all schools, ministers and public school teachers. Also that the matter of recommending certain changes and additions to present instruction in physiology and anatomy in public schools be put in the hands of said committee, whose duty it shall be to thoroughly canvass the matter and give recommendations at the next meeting of this Society.

The President appointed as the Committee Drs. Emma T. Schreiner, F. F. Massey and Anna Johnston.

Dr. J. H. McClelland offered the following resolution:—

Resolved, That, in view of the widespread demand for homœo-

pathic practitioners, the special committee created under the action on the report of the Committee on President's Address be instructed to consider the propriety of raising each year, by subscription or otherwise, a fund for the purpose of assisting young men through college—preferably the institution located in our own State.

On motion the resolution was adopted.

Dr. E. M. Gramm offered the following resolution:—

Resolved, That the thanks of the Homœopathic Medical Society of the State of Pennsylvania be and are hereby tendered to Dr. F. J. Slough, of Allentown, for the gavel which he has presented to the Society and which he had made from wood taken from the Allentown Academy, the first homœopathic college established in the world.

This resolution was, on motion, adopted.

REPORT OF THE BOARD OF CENSORS.

The Censors reported that the names of Drs. Gaius J. Jones and J. Richey Horner, both of Cleveland, Ohio, had been proposed for Honorary Membership at the last annual meeting and that they would recommend the election of both of the nominees. On motion, Drs. Gaius J. Jones and J. Richey Horner were unanimously elected Honorary Members.

The Censors also reported having examined into the qualifications of the following applicants for Active Membership and would recommend that they be elected. They were thereupon elected to Active Membership.

NEW MEMBERS.

Lydia Reinhold Baker, M. D., Williamsport.
Oscar E. Boericke, M. D., 1846 N. 18th Street, Philadelphia.
W. E. J. Bomberger, M. D., 1446 Market Street, Harrisburg.
Howard Cheyney, M. D., Williamsport.
F. A. Clawson, M. D., Meadville.
Joseph V. T. Clay, M. D., 2138 S. 15th Street, Philadelphia.
Charles H. Cloud, M. D., 14 N. 60th Street, Philadelphia.
A. H. Detweiler, M. D., Schuylkill Haven.
Edward C. Dreher, M. D., Wilkes-Barre.

J. Oscar Dicks, M. D., West Chester.
H. E. Dunne, M. D., Ridgway.
Adelbert D. Dye, M. D., 250 Pine Street, Williamsport.
John Ege, M. D., 142 N. 8th Street, Reading.
Guy A. Gerberich, M. D., Lebanon.
H. L. Gerberich, M. D., Lebanon.
W. R. Gieser, M. D., 832 N. 5th Street, Philadelphia.
Edwin A. Glenn, M. D., 2d and Chestnut Streets, Berwick.
Nathan B. Hammond, M. D., 49 N. 52d Street, Philadelphia.
Ellen E. Woodward Howell, M. D., 254 S. 16th Street, Philadelphia.
Charles W. Karsner, M. D., 1320 S. Broad Street, Philadelphia.
W. T. Killian, M. D., 5615 Wyalusing Avenue, Philadelphia.
D. S. Kistler, M. D., 307 S. Franklin Street, Wilkes-Barre.
E. L. Klock, M. D., Branch Dale.
Joseph V. Klock, M. D., Mahanoy City.
D. M. Landis, M. D., Perkasie.
G. W. Mackenzie, M. D., 1831 Chestnut Street, Philadelphia.
A. C. Morozzi, M. D., Honey Brook.
S. C. Moyer, M. D., Lansdale.
William G. Moyer, M. D., Lansdale.
Mary D. Mumford, M. D., Meadville.
M. H. Neumuller, M. D., Lansford.
Roscoe L. Perkins, M. D., 1207 N. 3d Street, Harrisburg.
Byron M. Peters, M. D., Jenkintown.
W. C. Peters, M. D., State Street, Harrisburg.
J. Darwin Pines, M. D., 2123 N. 19th Street, Philadelphia.
W. Edgar Reily, M. D., Clearfield.
John W. Reith, M. D., 224 W. Chestnut Street, Lancaster.
Henry H. Rhodes, M. D., Middletown.
Robert Rice, M. D., Crozer Hospital, Chester.
F. B. Richtstine, M. D., Sunbury.
Charles L. W. Rieger, M. D., 1855 Marvine Street, Philadelphia.
Carl H. Robinsteen, M. D., Homœopathic Hospital, Pittsburgh.
E. B. Rossiter, M. D., Pottstown.
James D. Schofield, M. D., Roxborough, Philadelphia.
A. L. Sierer, M. D., 2003 N. 6th Street, Harrisburg.
Standley G. Small, M. D., N. S., Pittsburgh.

E. B. Smith, M. D., Union City.

Annie W. Stauffer, M. D., 1516 Montgomery Avenue, Philadelphia.

William M. Sylvis, M. D., 1533 S. 18th Street, Philadelphia.

C. W. Truter, M. D., Homœopathic Hospital, Pittsburgh.

H. O. Williams, M. D., Lansdale.

W. Lear Williams, M. D., Mt. Carmel.

William Rendell Williams, M. D., 111 S. 42d Street, Philadelphia.

S. E. Winget, M. D., Waynesburg.

William H. Yeager, M. D., 3300 N. 15th Street, Philadelphia.

J. M. Yeagley, M. D., Lancaster.

ELECTION OF OFFICERS.

The following officers were elected:

President, D. P. Maddux, M. D., Chester.

First Vice President, E. W. Brickley, M. D., York.

Second Vice President, W. A. Stewart, M. D., Pittsburgh.

Recording Secretary, G. B. Moreland, M. D., Pittsburgh.

Corresponding Secretary, E. M. Gramm, M. D., Philadelphia.

Treasurer, Ella D. Goff, M. D., Allegheny.

Censor (to serve for three years), T. H. Carmichael, M. D., Philadelphia.

Trustees (to serve for three years), J. R. Swartz, M. D., Harrisburg; H. S. Weaver, M. D., Philadelphia; R. L. Piper, M. D., Tyrone.

A unanimous vote of thanks was tendered to the President, Dr. W. F. Edmundson, for the courteous and able manner in which he had conducted the business of the session.

Votes of thanks were also tendered the Goodno Society, the press, the ladies of Harrisburg and the Committee of Arrangements of the Board of Trustees.

DELEGATES AND COMMITTEES.

Delegate to the American Institute of Homœopathy, Dr. J. J. Tuller. Alternate, Dr. A. P. Bowie.

Delegate to the Interstate Committee of the American Institute of Homœopathy (to serve until December 31st, 1910), Drs. B. F. Betts

and Augustus Korndoerfer, Sr. Alternates, Drs. J. B. McClelland and D. C. Kline.

Committee on Legislation (to serve 1908 and 1909), J. J. Tuller, M. D., Chairman; associates, Drs. L. T. Ashcraft, F. W. Boyer, E. W. Brickley, H. M. Bunting, T. H. Carmichael, M. M. Fleagle, D. P. Gerberich, E. M. Gramm, E. R. Gregg, C. H. Hofmann, D. C. Kline, Augustus Korndoerfer, Sr., J. H. McClelland, C. S. Middleton, G. B. Moreland, G. A. Mueller, E. C. Parsons, L. P. Posey, H. F. Schantz, W. A. Seibert, C. P. Seip, F. J. Slough, E. S. Snyder, L. A. Snyder, J. R. Swartz, J. W. Stitzel, W. B. Van Lennep, H. B. Ware, Julia G. Waylan.

Committee on Organization, Registration and Statistics, G. B. Moreland, M. D., Chairman; associate, Drs. E. H. Pond, E. M. Gramm.

Committee on Publication, E. M. Gramm, M. D., Chairman; associates, Drs. Ella D. Goff, G. B. Moreland.

Press Committee, H. F. Schantz, M. D., Chairman; associates, Drs. W. J. Martin, R. L. Piper.

Committee on Membership (to serve one year), W. A. Stewart, M. D., Chairman; Drs. D. W. Straub, C. W. Sample; (to serve two years), Drs. Ralph Bernstein, E. C. Blackburn, W. H. Follmer.

Committee on Hering Monument, C. P. Seip, M. D., Chairman; associates, Drs. B. F. Betts, A. P. Bowie, Edward Cranch, O. S. Haines, J. E. James, Sr., D. C. Kline, Augustus Korndoerfer, Sr., D. P. Maddux, W. J. Martin, J. B. McClelland, E. H. Morrow, W. A. Seibert, H. B. Ware.

Committee to encourage the study of Homœopathy, J. H. McClelland, M. D., Chairman; associates, Drs. W. B. Van Lennep, W. A. Seibert.

Committee to have lectures on Homœopathy given in the course of the Society for the Extension of University Teaching, the Trustees of the Society and Drs. F. F. Massey, W. A. Stewart, T. H. Carmichael.

Committee for combating the social evil, Drs. Emma T. Schreiner, F. F. Massey, Anna Johnston.

CHARTER OF THE HOMŒOPATHIC MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

To the Honorable, the Judges of the Court of Common Pleas of Philadelphia County, Pennsylvania:

In compliance with the requirements of an Act of the General Assembly of the Commonwealth of Pennsylvania, entitled "An Act to provide for the Incorporation and Regulation of Certain Corporations," approved the twenty-ninth day of April, A. D. 1874, and the supplements thereto, the undersigned, all of whom are citizens of Pennsylvania, having associated themselves together, with others hereinafter named, for the purpose hereinafter specified, and desiring that they may be incorporated according to law, do hereby certify:

First, The name of the proposed Corporation is The Homœopathic Medical Society of the State of Pennsylvania.

Second, The said Corporation is formed for the purpose of organizing the Homœopathic Medical Profession in the State of Pennsylvania and advancing Medical Sciences.

Third, The business of said Corporation is to be transacted in the City of Philadelphia.

Fourth, The said Corporation is to exist perpetually.

Fifth, The names and residences of the Corporators are as follows: William W. Van Baun, M. D., Philadelphia; John F. Cooper, M. D., Allegheny; Edward M. Gramm, M. D., Philadelphia; Z. T. Miller, M. D., Pittsburg; William B. Van Lennep, M. D., Philadelphia; Edward Cranch, M. D., Erie; Augustus Korndœrfer, Sr., M. D., Philadelphia; Alonzo P. Bowie, M. D., Uniontown; Clarence Bartlett, M. D., Philadelphia; Hugh Pitcairn, M. D., Harrisburg; Pemberton Dudley, M. D., Philadelphia; L. H. Willard, M. D., Allegheny; William C. Goodno, M. D., Philadelphia; Daniel P. Maddux, M. D., Chester; J. N. Mitchell, M. D., Philadelphia; Horace B. Ware, M. D., Scranton; William H. Keim, M. D., Philadelphia; W. A. Seibert, M. D., Easton; Charles M. Thomas, M. D., Philadelphia; J. H. McClelland, M. D., Pittsburg; John E. James, M. D., Philadelphia; Joseph E. Jones, M. D., West Chester; Isaac G.

Smedley, M. D., Philadelphia; H. C. Chisolm, M. D., Huntingdon; T. H. Carmichael, M. D., Philadelphia, all of the State of Pennsylvania.

Sixth, The number of Trustees of said Corporation is fixed at nine, and the names and residences of those who are chosen as Trustees until the next annual election are as follows: William W. Van Baun, M. D., Philadelphia; John F. Cooper, M. D., Allegheny; E. M. Gramm, M. D., Philadelphia; Z. T. Miller, M. D., Pittsburg; William B. Van Lennep, M. D., Philadelphia; Edward Cranch, M. D., Erie; William H. Keim, M. D., Philadelphia; J. N. Mitchell, M. D., Philadelphia; Daniel P. Maddux, M. D., Chester.

Seventh. At the next annual election for Trustees of the Corporation three Trustees shall be elected to serve for the term of one year, three others to serve for the term of two years, and three others to serve for the term of three years, and thereafter annually three Trustees shall be elected to serve for the term of three years in the place of those whose terms expire.

Witness our hands and seals this third day of November, A. D. eighteen hundred and ninety-six.

WILLIAM W. VAN BAUN, M. D. [L. S.],
WILLIAM B. VAN LENNEP, M. D. [L. S.],
CLARENCE BARTLETT, M. D. [L. S.],
W. C. GOODNO, M. D. [L. S.],
J. NICHOLAS MITCHELL, M. D. [L. S.].

COMMONWEALTH OF PENNSYLVANIA, COUNTY OF PHILADELPHIA, *ss.*

Before me, the subscriber, a Notary Public for the Commonwealth of Pennsylvania, residing in the City of Philadelphia, personally appeared Wm. W. Van Baun, M. D., Wm. B. Van Lennep, M. D., and Clarence Bartlett, M. D., three of the subscribers of the above and foregoing certificate of incorporation of The Homœopathic Medical Society of the State of Pennsylvania, and in due form of law acknowledged the same to be their act and deed.

Witness my hand and official seal the third day of November, A. D. 1896.

[L. S.] WINFIELD S. SHEARD,
Notary Public.

In the Court of Common Pleas for Philadelphia County:

In the Matter of the Incorporation of The Homœopathic Medical Society of the State of Pennsylvania.

And now, to wit, this seventh day of December, A. D. 1896, the within Certificate of Incorporation having been on file in the Office of the Prothonotary of said Court since the twelfth day of November, A. D. 1896, on which publication of notice of intended application was first made, as appears from the entry thereon, and due proof of said publication having been presented to me, I do hereby certify that I have perused and examined said instrument and find the same to be in proper form and within the purposes named in the first class of Corporations specified in Section 2 of the Act of April 29, 1874, and that said purposes are lawful and not injurious to the community. It is, therefore, on motion of William C. Hannis, Esq., ordered and decreed that the said Charter be approved and is hereby approved, and upon the recording of said Charter and its endorsements and this decree in the office of the Recorder of Deeds in and for said County, which is now hereby directed, the subscribers and their associates shall thenceforth be a Corporation for the purposes and upon the terms and under the name therein stated.

[L. S.] T. K. Finletter,
Judge.

Recorded in the Office for Recording Deeds, etc., in and for the City and County of Philadelphia in Charter Book No. 22, page 284, etc.

Witness my hand and Seal of Office this seventh day of December, A. D. 1896.

[L. S.] Wm. Geary,
Recorder of Deeds.

BY-LAWS.

ARTICLE I.—Title.

This Corporation shall be known by the name and title of The Homœopathic Medical Society of the State of Pennsylvania.

ARTICLE II.—Object.

The said Society is formed for the purpose of organizing the homœopathic medical profession in the State of Pennsylvania and advancing medical sciences.

ARTICLE III.—Membership.

Section 1. This Society shall be composed of active, honorary and corresponding members.

Sec. 2. A candidate for active membership shall present to the Board of Censors an application, signed by himself, certifying that he has received the degree of Doctor of Medicine from an incorporated medical college, that he subscribes to the doctrine of *Similia Similibus Curentur,* and that he sustains a good moral character—these statements to be vouched for by two members of the Society in good standing. If found qualified, he may be elected a member. He shall not, however, be considered a member until he has paid the first year's dues and signed the Constitution, either in person or by proxy. An active member removing from the State, wishing to retain his membership, shall notify the Corresponding Secretary to that effect, otherwise the Corresponding Secretary shall drop his name from the roll. Any active member who shall be three years in arrears for dues shall forfeit his membership, and he shall not be reinstated until all arrearages shall have been paid. Membership shall also be forfeited by vote of the Society if a member fails to attend the meetings of the Society or present a paper once in five years. Any active member who shall be unable to comply with the requirements of this Society may be continued as an active member, without the payment of dues, by vote of the Society.

Sec. 3. Any Homœopathic physician, not a resident of Pennsylvania, who may be judged worthy, may, by a two-thirds vote of

the members present, be elected an honorary member at any annual meeting; provided, that the proposal for honorary membership shall have been made at a previous annual meeting, and said proposal been approved by the Board of Censors, but no more than two shall be elected in one year. Honorary members shall have all the privileges of membership except the right to vote and to hold office, and shall be exempt from dues.

Sec. 4. Any Homœopathic physician residing outside of the United States may be elected a corresponding member by a vote of two-thirds of the members present at any annual meeting, but not more than two shall be elected in one year. Corresponding members shall have all the privileges of membership except the right to vote and to hold office, and shall be exempt from dues.

ARTICLE IV.—Officers.

Section 1. The officers of this Society shall be a President, a First Vice-President, a Second Vice-President, a Recording Secretary, a Corresponding Secretary, a Treasurer, a Necrologist, a Board of Trustees consisting of nine members, and a Board of Censors consisting of three members.

Sec. 2. The nomination for officers of the Society shall be the special order of business for 11 o'clock on the morning of the second day of the annual meeting. The officers shall be elected by ballot, the election to be the special order of business for 11 o'clock on the morning of the third day of the annual meeting. The candidate receiving a majority of the votes cast shall be declared elected. The officers elected shall enter upon their respective duties on the first day of January next succeeding their election, to serve for the term of one year, or until their successors are elected, except as hereinafter provided.

Sec. 3. The Board of Trustees shall serve for a term of three years, three members to be elected annually. No member of the Board of Trustees shall be eligible to serve two terms in succession.

Sec. 4. The Censors shall be elected to serve for three years, one member to be elected annually.

ARTICLE V.—Duties of Officers.

Section 1. The President shall preside at all meetings of the Society. He shall preserve order, appoint all committees unless other-

wise directed, and discharge all other duties usually pertaining to a presiding officer, in accordance with the provisions of the Charter and these By-Laws. He shall be, *ex officio,* a member of all standing committees of the Society, and Chairman of the Board of Trustees. He shall not be eligible to office two terms in succession. On assuming office it shall be his duty to appoint a Chairman of each of the Sections designated in Article VIII., Section 1, and the Chairman, in conjunction with the President, shall select his associates.

Sec. 2. The Vice-Presidents, in the order of their election, shall perform the duties of the President in his absence.

Sec. 3. The Recording Secretary shall keep correct minutes of the proceedings of the Society, and, when approved, transcribe them in a book kept for that purpose. He shall have charge of the minute-book, all papers, documents, etc., belonging to the Society, other than those pertaining to the Treasurer, the Trustees, or the Committee on Publication, and shall keep them during the intervals of the meetings of the Society. Within twenty-one days after adjournment he shall furnish the Committee on Publication with a correct copy of the minutes for publication in the Transactions, countersign orders upon the Treasurer in accordance with the By-Laws, and shall perform such other duties pertaining to his office as may from time to time be required. He shall be, *ex officio,* Chairman of the Committee on Organization, Registration and Statistics.

Sec. 4. The Corresponding Secretary shall preserve all letters received by the Society, conduct such correspondence as shall tend to advance its interests, prepare the order of business for the annual session of the Society, give at least two weeks' notice of all meetings, keep a record of all members, with the date of admission of each, present all communications to the Society, notify all committees of their appointment and of the business referred to them, and notify all members of their election. He shall be, *ex officio,* Chairman of the Committee on Publication.

Sec. 5. The Treasurer shall hold the evidence of all property belonging to The Homœopathic Medical Society of the State of Pennsylvania, receive all moneys intended for the Treasury of the Society, and deposit the same in the name of The Homœopathic Medical Society of the State of Pennsylvania as shall be directed by the Board of Trustees, make no payments except on orders drawn in ac-

cordance with the By-Laws, keep a full account of receipts and expenditures, which shall at all times be open to the inspection of the Board of Trustees, make a report to the Society in writing at each annual meeting, and, whenever required, of the state of his accounts and the condition of the Treasury, and shall annually notify all members of their arrearages.

Sec. 6. The Necrologist, upon the death of a member of the Society shall prepare a suitable obituary and present it to the Society at its annual meeting.

Sec. 7. The Trustees shall have general supervision of the business of the Society, hold at least one meeting every year, and make a report at the annual session of the Society. The Trustees shall have the power to disburse all money belonging to the Society. No money shall be paid from the treasury except upon a written order, drawn on the Treasurer and countersigned by the Chairman and Secretary of the Board of Trustees.

The Trustees, acting as the Judicial Council, shall take cognizance of, and decide upon all questions of an ethical or judicial character. All questions of a personal character shall be referred at once, without discussion, to the Judicial Council. Every decision of the Council shall be in writing, signed by a majority of the members present, be reported to this Society at the earliest practical moment, and shall be final. The Council shall preserve permanent records of all its proceedings.

Sec. 8. The Censors shall examine the credentials of candidates for membership, and report to the Society for election those who may be found qualified. They may report in the regular order of business or at the close of the report of any bureau.

ARTICLE VI.—Meetings.

Section 1. The annual meeting shall be held in the month of September, on the days and at the place decided upon at the annual meeting next preceding; an invitation to hold the annual meeting in any locality shall be considered only when extended by a regularly organized society.

Sec. 2. Nine members shall constitute a quorum for the transaction of the ordinary business of the Society; but for scientific or literary purposes, unless an actual count be called for, a quorum

shall always be presumed. For amending the By-Laws, twenty members shall constitute a quorum.

Sec. 3. The Board of Trustees shall have power to direct such other meetings as it may judge advisable.

Sec. 4. Should occasion arise making it necessary to change the time and place of meeting agreed upon at the previous annual session, the same may be done by a vote of the Board of Trustees.

ARTICLE VII.—Dues.

Section 1. Active members shall pay the sum of five dollars upon their election.

Sec. 2. Active members shall pay annually, in advance, the sum of three dollars toward defraying the expenses of the Society. Any member who shall fail to pay his annual dues for three successive years shall be dropped from the roll of members, after having been notified by the Corresponding Secretary of the forfeiture of his membership. The published proceedings of the Society will be furnished only to those members who are not in arrears for dues.

ARTICLE VIII.—Sections.

Section 1. The following Sections shall be appointed as hereinafter provided:

Gynæcology.
Homœopathic Institutes and Clinical Medicine.
Materia Medica and Provings.
Obstetrics.
Ophthalmology, Otology and Laryngology.
Pædology.
Pathology and Pathological Anatomy.
Sanitary Science.
Surgery.

Sec. 2. Each Section shall be composed of not less than five members, and no member shall be placed on more than one Section.

Sec. 3. The Sections shall report in order of rotation each succeeding year, except the Section of Materia Medica, whose report shall be a special order of business at the opening of the afternoon session of the second day of the Society meeting.

Sec. 4. If a member of a Section shall resign or decline to serve, the Chairman of the Section shall fill the vacancy and notify the Corresponding Secretary of his action.

ARTICLE IX.—Standing Committees.

The following Committees shall be appointed by the President on assuming office:

A Committee on Legislation which shall serve two years, of at least nine members, to be appointed by the President in alternate years, whose duty it shall be to give special attention to all legislation involving the interests of the Society.

A Committee on Organization, Registration and Statistics, of at least three members, to be appointed by the President, of which the Recording Secretary shall be Chairman. It shall receive all credentials of delegates to the Society; receive and preserve reports from local and State societies, colleges and other institutions; keep a record of the number of members admitted and withdrawn from the Society, and perform such other duties as may be directed by the Society. From these data the annual report of the Committee shall be prepared.

A Publication Committee, consisting of the Treasurer, Recording Secretary and Corresponding Secretary, the latter being Chairman; but the numbebr of its members may be increased at the discretion of the Society. It shall be the duty of the Committee within six months from the date of the annual meeting to publish and issue the Transactions to all who are entitled to receive them, unless otherwise directed by the Society.

A Committee on Membership and Organization to consist of six members who shall serve for two years, three members to be appointed each year. It shall be the duty of this Committee to aid in obtaining new members for the Society; to urge attendance at the annual meetings, and to promote the organization of county and other local societies, so that fraternal and close professional relationship of the members of the Homœopathic medical profession may be furthered.

A Committee delegated to serve on the Interstate Committee of the American Institute of Homœopathy to consist of two members of this Society who shall also be members of the American Institute of Homœopathy, to serve for a term of four years; and two alternates who shall also serve four years, and who shall be members of this Society and of the American Institute of Homœopathy.

ARTICLE X.—Papers and Discussions.

Section 1. Each paper presented to this Society shall be through its appropriate Section. All papers to be presented by any Section shall be in the hands of the Chairman thereof at the opening of the session. All papers shall be subject to the approval and revision of the Publication Committee. No paper will be received by the Society in an incomplete condition, and no paper will be published as part of the Transactions which has been published previous to its presentation to this Society. No paper shall occupy more than fifteen minutes in the reading, unless the time be extended by an affirmative three-fourths' vote of the members of the Society present. In the absence of the author of a paper the Chairman of its appropriate Section may request any member of the Society present to read the same or it shall be read at the request of five members. Any paper may be published in a medical journal subsequent to its presentation to the Society, provided that the original be retained in the custody of the Publication Committee.

All communications read before the Society shall become its property.

Sec. 2. The discussion shall follow the reading of each paper, unless otherwise ordered by the Society. All discussions shall be confined to the subject of the paper or report. No member shall speak more than twice on the same subject, except by vote of the Society, and each speaker shall be limited to a speech of ten minutes, and to one of five minutes if he speaks a second time. No excess of time shall be allowed, except by consent of the Society. The reader of the paper shall be allowed ten minutes at the close of the discussion.

ARTICLE XI.—Seal.

The Society shall have and use one common seal. The Corresponding Secretary shall be the custodian of the seal.

ARTICLE XII.—Senior Members.

Members of the Society who shall have maintained twenty-one years of consecutive membership shall be Senior Members, and their names shall be printed in capital letters in the list of members in the Transactons.

ARTICLE XIII.—Code of Ethics.

Section 1. The Code of Ethics of the American Institute of Homœopathy is adopted by this Society for its guidance.

Sec. 2. All complaints of violation of the Code of Ethics shall be referred to the Judicial Council, and the decision of the Council shall be final.

ARTICLE XIV.—Minutes.

The reading of the minutes for approval and record shall be the first order of business at the morning meetings of the Society, and at the close of the final session.

ARTICLE XV.—Amendments.

These By-Laws may be altered or amended by a vote of two-thirds of the members present at any annual meeting; *provided,* that notice of such proposed alteration or amendment shall have been given to the Society in writing at the annual meeting next preceding, and notice of such proposed alteration or amendment shall appear in the call for the meeting at which it is to be acted upon.

CODE OF MEDICAL ETHICS

OF THE

AMERICAN INSTITUTE OF HOMŒOPATHY.

(ADOPTED IN 1893.)

SCOPE.

The scope of a Code of Medical Ethics comprises the reciprocal duties and obligations of physicians and patients; the duties and obligations of physicians to each other; and the reciprocal duties and obligations of physicians and the public.

FUNDAMENTAL PRINCIPLES.

The great principles upon which Medical Ethics are based are these:

1. The great end and object of the physician's efforts should be: "The greatest good to the patient."

2. The rule of conduct of physician and patient, and of physicians toward each other, should be the GOLDEN RULE: "As ye would that men should do to you, do ye also to them, likewise."

The various articles of the Code are only special applications of these great principles.

PART I.

RECIPROCAL DUTIES AND OBLIGATIONS OF PHYSICIANS AND PATIENTS.

Article I. DUTIES OF PHYSICIANS TO PATIENTS.
" II. DUTIES OF PATIENTS TO THEIR PHYSICIANS.

PART II.

DUTIES AND OBLIGATIONS OF PHYSICIANS TO EACH OTHER.

Article I. DUTIES AS MEMBERS OF THE MEDICAL PROFESSION.
" II. PROFESSIONAL SERVICES TO EACH OTHER.
" III. VICARIOUS SERVICES.
" IV. IN REGARD TO CONSULTATION.

" V. In Cases of Interference.
" VI. Differences Between Physicians.
" VII. Concerning Pecuniary Obligation.

PART III.

RECIPROCAL DUTIES AND OBLIGATIONS OF PHYSICIANS AND THE PUBLIC.

Article I. Duties of the Profession to the Public.
" II. Obligations of the Public to Physicians.

PART I.

OF THE RECIPROCAL DUTIES AND OBLIGATIONS OF PHYSICIANS AND THEIR PATIENTS.

Article I.—Duties of the Physician to the Patient.

Section 1. The physician should hold himself in constant readiness to obey the calls of the sick. He should bear in mind the sacred character of his calling and the great responsibility which it involves, and shou'd remember that the comfort, the health and the lives of his patients depend upon the skill, attention and faithfulness with which he performs his professional duties.

Section 2. The physician, in order that he may be able to exercise his vocation to the best advantage of the patient, should possess his respect and confidence. These must be acquired and retained by faithful attention to his malady, by indulgent tenderness toward the weaknesses incident to his condition, and by the exercise of a firm but kindly authority. The physician is bound to keep secret whatever he may either hear or observe while in the discharge of his professional duties, respecting the private affairs of the patient or his family. And this obligation is not limited to the period during which the physician is in attendance on the patient. The patient should be made to feel that he has, in his physician, a friend who will guard his secrets with scrupulous honor and fidelity.

Section 3. The physician should visit his patient as often as may be necessary to enable him to acquire and keep a full knowledge of the nature, progress, changes and complications of the disease,

and to do for the patient the utmost of good that he is able. But he should carefully avoid making unnecessary visits lest he render the patient needlessly anxious about his case, or expose himself to the charge of being actuated by mercenary motives.

SECTION 4. The physician should not give expression to gloomy forebodings respecting the patient's diseases, nor magnify the gravity of the case. Bearing in mind the almost infinite resources of nature, he should be cheerful and hopeful, both in mind and manner. This will enable him the better to exercise his faculties and apply his knowledge for the patient's benefit, and will inspire the patient with confidence, courage and fortitude, which are the physician's best moral adjuvants.

But it is the physician's duty to state the true nature and prospects of the case, from time to time, to some judicious friend or relative of the patient, and to keep this person fully informed of its changes and probable issue; and if the patient himself request the physician to disclose to him the nature and prognosis of his disease, it is his duty to state tenderly, but frankly, the whole truth—provided the patient be of sound mind and strong enough to receive the disclosure without serious injury. The patient has a right to know the truth. If, moreover, facts within the physician's knowledge lead him to believe that it is of great importance in relation to the patient's affairs, that he should be warned of the approach of death, it is the physician's duty to reveal to the patient's nearest friend, or to the patient himself, the true state of the case, and the importance of timely action.

SECTION 5. Whether the case proceed favorably, or become manifestly incurable, it is the physician's duty to continue his attendance faithfully and conscientiously so long as the patient may desire it. He is not justified in abandoning a case merely because he supposes it incurable.

SECTION 6. As the patient has an undoubted right to dismiss his physician for reasons satisfactory to himself, so likewise, the physician may, with equal propriety, decline to attend patients, when his self-respect or dignity seem to him to require this step; as, for example, when they persistently refuse to comply with his directions.

SECTION 7. In difficult or protracted cases consultations are advisable. They tend to increase the knowledge, energy and confidence of the physician, and to maintain the courage of the patient.

The physician should be ready to act upon any desire which the patient may express for a consultation, even though he may not himself feel the need of it. Nothing is so likely to maintain the patient's confidence as alacrity in this respect. Moreover, such a course is but just to him, for he has an indisputable right to whatever aid or counsel he may think likely to be of service to him.

SECTION 8. The intimate relations into which the physician is brought with his patient give him opportunity to exercise a powerful moral influence over him. This should always be exerted to turn him from dangerous or vicious courses towards a temperate and virtuous life. The physician is sometimes called to assist in practices of questionable propriety, and even of a criminal character. Among these may be mentioned the pretence of disease, in order to evade services demanded by law, as jury or military duty; the concealment of organic disease or of morbid tendencies, in order to secure favorable rates of life insurance, or for deception of other kinds; and especially the procurement of abortion when not necessary to save the life of the mother. To all such propositions, the physician should present an inflexible opposition. It is his duty, in an authoritative, but friendly manner, to explain and urge the nature, illegality and guilt of the proposed action, and to use every effort to dissuade from it, and to strengthen the patient's virtue and sense of right. The physician should be aware of the frequency of criminal abortion, and of the different methods employed for it, and should take every occasion to warn those who may be tempted to resort to it. In no case should the physician induce abortion, or premature labor, without a previous consultation, with the most experienced practitioners obtainable, nor without the most clear and imperative reasons.

Article II.—Duties and Obligations of Patients to Their Physicians.

SECTION 1. Physicians are required, by the nature of their profession, to sacrifice comfort, ease and even health, for the sake of their patients. Patients should reflect upon this, and should understand and remember that they have corresponding duties and obligations towards their physicians.

SECTION 2. The patient should select a physician in whose knowledge, skill and fidelity he can place implicit confidence; whose habits

of life are regular and temperate, and whose character and demeanor are such that he can regard him as a personal friend. He must be able to confide in him freely. And the physician should not be changed for light reasons. A physician thoroughly acquainted with the constitution, temperament and tendencies of a family can the more successfully treat them.

SECTION 3. The patient should always consult his physician as early as possible after he has discovered that he is ill. A disease which is trifling at its onset may grow formidable through neglect. The physician should be regarded as a confidential adviser, who, on being early consulted, may prevent a sickness.

SECTION 4. The patient should faithfully and unreservedly state to his physician the supposed cause of his malady, and tell him everything that may have a bearing upon its nature. Since the physician is under the strongest obligations to secrecy, the patient should not allow considerations of delicacy, modesty or pride to prevent an entirely frank statement of his case, and candid and full replies to interrogatories.

SECTION 5. The patient should implicitly obey his physician's injunctions as regards diet, regimen and medical treatment. If he deviate from these directions, he cannot hold the physician to a full responsibility in the case: and, further, by a partial obedience he incurs some personal risk, since, in the treatment of diseases, all parts of the physician's advice are made to harmonize, and each is dependent on the others and may be unsafe without the coincidence of the others. Moreover, he does the physician an undeserved, and often a serious, wrong. If the patient have not sufficient confidence in his physician, and respect for him, to follow his directions, it were better for him to frankly say so, and to employ another in whom he can confide.

The patient should never allow himself, while under a physician's treatment, to take other medicines than those prescribed by him. He would, by so doing, incur a serious risk of taking medicines that are incompatible with eath other. If desirous of trying any other mode of treatment it would be much better frankly to state the fact to his physician and ask his advice.

SECTION 6. The patient should, if possible, avoid receiving the friendly visit of a physician other than the one under whose charge

he is. When he receives such visits he should avoid conversation on the subject of his disease, for an accidental observation might give him false impressions respecting his disease or destroy his confidence in the treatment he is pursuing. He should never send for a consulting physician without the express consent of his own medical attendant, for physicians can act together for the advantage of their patient only when they act harmoniously. Nor should he, by a secret appointment, constrain his medical attendant to meet another physician with whom he might not be willing to consult; but the patient has an undoubted right to have the opinion of any physician whom he may desire upon his case. His proper course is to request his medical attendant to arrange a consultation and frankly state his desire for the physician whom he may prefer. If his medical attendant decline the consultation it is then for the patient to determine whether he will insist and thus dismiss his medical attendant, or whether he will defer to the judgment of his own physician. And the patient has a right thus to choose.

SECTION 7. If the patient wishes to dismiss his physician he should, in justice and in common courtesy, state his reasons, and, if possible in a friendly manner. To dispense with the service of a physician need not, of necessity, change the social relations of the parties.

SECTION 8. The patient should, when practicable, send for the physician in the morning, before his usual hour for leaving home. He will, by so doing, secure his earlier attendance, and will enable him the better to apportion his time so as to do justice to all his calls and engagements. He should call on his physician during his office hours only, and should avoid disturbing him in hours devoted to meals, rest and sleep. And in receiving his physician's visits he should avoid compelling him to wait, even a few minutes. The aggregate of petty detentions, while the patient is making some needless preparation to receive the physician, amount to a serious waste of valuable time.

PART II.

OF THE DUTIES AND OBLIGATIONS OF PHYSICIANS TO THE PROFESSION AND TO EACH OTHER.

Article I.—Duties to the Profession.

SECTION 1. Inasmuch as every member of the medical profession partakes of the honor in which it is held, and is entitled to its privileges and immunities and profits by the scientific labors of his predecessors and associates, it is his duty faithfully to endeavor, in his turn, to elevate the position of the profession and, by every honorable exertion, to enrich the science of medicine.

SECTION 2. In no other profession should a higher standard of morality and greater purity of personal character be required. Physicians ought to come up to this standard and do what they may to exalt it. As the practice of medicine requires constant exercise of a vigorous and clear understanding, and as the practitioner should be, at all times, ready for emergencies in which the welfare and even the life of a fellow-creature may depend upon his steady hand, acute eye, and unclouded brain, it is incumbent upon the physician to be temperate in all things.

SECTION 3. The physician should not resort to public advertisements or private cards or handbills, inviting the attention of persons affected by particular diseases or publicly offering advice and medicine to the poor *gratis*, or promising radical cures. Neither should he publish cases of operations in the daily prints, nor invite laymen to be present at operations, nor solicit or exhibit certificates of skill and success, nor perform any similar act.

SECTION 4. It is equally derogatory to professional character for a physician to hold a patent for any nostrum or any surgical instrument or appliance, or to keep secret the nature or composition of any medicine used by him. Such restriction or concealment is inconsistent with the beneficence and liberality which should characterize the medical profession. But it is the duty of the physician to avail himself of every opportunity to observe the action and study the properties of new or secret remedies and new processes of preparing medicines as well as new modes of treating diseases, and to subject them to the analysis of scientific investigation. For the physi-

cian should always bear in mind that the great object of his profession is to cure the sick, and that it is not only admissible, but it is his solemn duty to investigate thoroughly and without prejudice whatever offers any probability of adding to his knowledge of the art and means of curing and of thus enriching the science of medicine.

Article II.—Professional Services of Physicians to Each Other.

SECTION 1. All practitioners of medicine, their wives and children, while under the paternal care, are entitled to the gratuitous services or any one or more of the faculty residing near them. Physicians, when ill, are incompetent to prescribe for themselves. The natural anxiety and solicitude which they feel for members of their own family when ill tend to obscure their professional judgment and make it difficult to treat them. Under these circumstances physicians are peculiarly dependent on each other, ano kind offices and professional aid should always be cheerfully and gratuitously afforded. But visits should not be obtruded officiously or unasked upon a sick physician.

If, however, a physician in affluent circumstances, request the attendance of a distant professional brother and offer an *honorarium*, it is not proper to decline it, for one should not, even from a kindly motive, impose upon another a pecuniary obligation which the recipient would not wish to incur.

If a physician is called from any considerable distance the expense of travel, etc., thereby incurred should always be paid by the physician receiving the visit, and an *honorarium* may be tendered if time is consumed in making the visit.

Article III.—Duties of Physicians as Regards Vicarious Offices.

SECTION 1. Attention to his personal affairs, the pursuit of health and the various contingencies to which the physician is peculiarly exposed, sometimes compel him temporarily to withdraw from his duties to his patients and to request some of his professional brethren to discharge them for him. Compliance with such a request is an act of courtesy which should always be performed with the utmost consideration for the interests and character of the physician relieved. And when this is done for a short period only all the

pecuniary obligations for such services should belong to him. But if a physician neglect his business in quest of amusement and pleasure he is not entitled to the frequent and long-continued exercise of this fraternal courtesy without conceding to the physician who acts for him the fees accruing from the duties discharged by the latter.

SECTION 2. Obsterical and surgical cases involve unusual fatigue and responsibility, and it is just that the fees accruing therefrom should belong to the physician who attends them.

Article IV.—Duties of Physicians in Regard to Consultations.

SECTION 1. A complete medical education, of which the diploma of a medical college is the formal voucher, furnishes the only presumptive evidence of the professional acquirements and abilities. But the annals of the profession contain the names of some who, not having the advantage of a complete medical education, became, nevertheless, through their own exertions and abilities, brilliant scholars and successful practitioners. A practitioner, therefore, whatever his credentials may be, who enjoys a good moral and professional standing in the community, should not be excluded from fellowship, nor his aid rejected, when it is desired by the patient in consultation. No difference in views on subjects of medical principles or practice should be allowed to influence a physician against consenting to a consultation with a fellow practitioner. The very object of a consultation is to bring together those who may, perhaps, differ in their views of the disease and its appropriate treatment, in the hope that, from a comparison of different views, may be derived a just estimate of the disease and a sucessful course of treatment.

No tests of orthodoxy in medical practice should be applied to limit the freedom of consultations. Medicine is a progressive science. Its history shows that what is heresy in one century may and probably will be orthodoxy in the next. No greater misfortune can befall the medical profession than the action of an influential association or academy establishing a creed or standard of orthodoxy or "regularity." It will be fatal to freedom and progress in opinion and practice. On the other hand, nothing will so stimulate the healthy growth of the profession, both in scientific strength and in the honorable estimation of the public, as the universal and sincere adoption of a platform which shall recognize and guarantee:

1. A truly fraternal good will and fellowship among all who devote themselves to the care of the sick.

2. A thorough and complete knowledge, however obtained, of all the direct and collateral branches of medical science—as it exists in all sects and schools of medicine—as the essential qualification of a physician.

3. Perfect freedom of opinion and practice, as the unquestionable prerogative of the practitioner, who is the sole judge of what is the best mode of treatment in each case of sickness intrusted to his care.

The physician may, with propriety, decline to meet a practitioner of whose inimical feelings toward himself or of whose general unfairness in consultations he is satisfied. But in such a case he should explain to the patient his reasons; and if the patient desire the opinion of the practitioner objected to the family physician may withdraw from the case and allow the other to be sent for. But in justice to the latter the state of affairs should be explained to him at the time he is requested to visit the patient.

SECTION 2. The utmost punctuality should be observed in the visits of physicians when they are to hold consultations together; and this is generally practicable, for society allows the plea of professional engagements to excuse the neglect of all others, and to be a valid reason for the relinquishment of any present occupation. But as professional engagements may sometimes interfere and delay one of the parties, the physician who first arrives should wait for his associate a reasonable period of time, after which the consultation should be considered postponed to a new appointment. If it be the attending physician who is present he will, of course, see the patient and prescribe; but if it be the consulting physician he should retire without seeing the patient, except in case of emergency, or when he has been called from a considerable distance, in which case he may examine the patient and give his opinion in writing and under seal, to be delivered to the attending physician.

SECTION 3. In consultations no rivalry or jealousy should be indulged in. Candor, probity and all due respect should be exercised toward the physician in charge of the case. If the consulting physician cannot agree with him respecting the nature and proper treatment of the case the physician should state this fact to the patient or his nearest friend, both physicians being present at the time, and

should request him to select the one in whom he has most confidence. But if they agree sufficiently to take joint charge of the case, then the consulting physician must justify and uphold, so far as he can conscientiously do so, the practice of his associate, and must abstain from any hints, insinuations or actions which might in any way impair the confidence which the patient reposes in him, or affect his reputation. He must refrain from any extraordinary attentions or assiduities calculated to ingratiate himself in the patient's favor and to supplant his associate.

SECTION 4. In consultations the attending physician should first put the necessary questions to the patient. After this the consulting physician should make such additional inquiries and examinations as may be needed to satisfy him of the true nature of the case. But he should avoid making a parade of examining the patient more thoroughly than had been done before, rather suggesting to the attending physician wherever is possible, to make whatever examinations he desires, than making them himself. Both physicians should then retire to a private room for deliberation.

SECTION 5. In consultations the attending physician should deliver his opinion first; and, when there are several consulting physicians, they should express their opinions in the order in which they have been called in. Should an irreconcilable diversity of opinion occur, when more than two physicians meet in consultation, the opinion of the majority should be regarded as decisive; but, if the number be equal on each side, the decision should rest with the attending physician. If two physicians, in consultation, cannot agree they should call in a third to act as umpire. If this be not practicable the patient must be requested to select the physician in whom he is most willing to confide. The physician who is left in the minority should, without any ill-feeling, retire from the consultation and from any further participation in the management of the case; and, in justice to the physician thus retiring, the fact of his difference from his associates should, in the presence of all the physicians attending, be explained to the patient as his reason for withdrawing from the case.

SECTION 6. The attending physician should communicate to the patient or his friends the directions agreed upon in the consultation, as well as any opinion which it may be thought proper to express.

But no statement or discussion should take place before the patient or his friends, except in the presence of all physicians attending, and by their common consent. And no opinions or prognostications should be delivered which are not the result of previous deliberation and concurrence. No decision arrived at in a consultation is to be regarded as restraining the attending physician from making such variations in the treatment as any subsequent change in the case may demand. But such variation, and the reason for it, ought to be carefully noted at the time, and detailed at the next meeting in consultation. The same privilege belongs also to the consulting physician, if he is sent for in an emergency when the attending physician is out of the way; and similar explanations must be made by him at the next meeting.

SECTION 7. Sometimes a special consultation is desirable in cases in which the continued attendance of two physicians might be objectionable to the patient. The consulting physician, in such a case, should sedulously avoid all further unsolicited attendance. Such consultations require an extraordinary outlay of time and attention, and at least a *double honorarium* may be reasonably expected.

SECTION 8. The consulting physician cannot, with propriety, take exclusive charge at any time of the patient in whose case he has been called in consultation without the consent of the attending physician, except in cases provided for by the third sentence of section 3 and by the fourth sentence of section 5, of this article.

Article V.—Duties of Physicians in Cases of Interference.

SECTION 1. Medicine is a liberal profession, and those admitted into its ranks should base their expectations of success upon the extent of their qualifications, not upon intrigue or artifice. A physician should not allow himself to feel envious or jealous of a brother practitioner. The distinction which one successful physician wins is shared by the whole profession. Nor should a physician suffer himself to feel ill-will towards another who may come into his neighborhood and appears likely to take a share of the business which he has hitherto enjoyed. Such feelings are inconsistent with the beneficent and liberal nature of the profession. Liberality and true generous fraternity in thought, word and deed will unite the interests of all the members of the profession, and will so exalt

the estimation in which it is held in the community that, confidence being increased, business will likewise increase; and to physicians will be acorded the position which, of right, should be theirs, that of confidential family advisers in all matters pertaining to the care of the body in health no less than in sickness.

SECTION 2. The physician, in his intercourse with a patient who is under the care of another practitioner, should observe the strictest caution and reserve. No meddling questions should be asked in any interview for business or friendship, no disingenuous hints thrown out relating to the nature and treatment of his disorder; nor should the patient be allowed to converse upon these topics. No course of conduct should be pursued which might, directly or indirectly, tend to diminish the trust reposed in the physician employed.

SECTION 3. A physician should not take charge of a patient who is, or has recently been, under the charge of another practitioner in the same illness, except in cases of sudden emergency, or in consultation with the physician previously in attendance, or when the latter has relinquished the case, or has been regularly notified that his services are no longer required. Under such circumstances no unjust or illiberal remarks should be made or insinuations thrown out in relation to the treatment pursued by the previous physician. Nor should the physician permit the patient unreasonably to find fault with his predecessor, for patients often become dissatisfied with their attention on account of the mere duration of a case which no degree of professional knowledge or skill could have shortened.

SECTION 4. In cases of accident or sudden emergency one or more physicians are often sent for by alarmed friends. Courtesy should assign the patient to the first of these that arrives; and he should select from those present such additional assistance as he may deem necessary. But he should also request the family physician (if there be one) to be sent for, and on his arrival, resign the case into his hands. The practitioner of the patient, when he arrives should take the place of any one called in his absence. "The practitioner of any patient" is the man whom he has in any way given to understand that he regards him as his medical adviser, or who would now be in charge of the case were it not for his absence, sickness or other disability.

SECTION 5. In a sparse population, a physician, when visiting a

sick person, may be desired to see, in an emergency, a neighboring patient, who is under the regular charge of another physician. The conduct to be pursued on such an occasion is to give advice adapted to present circumstances; to interfere as little as possible with the general plan of treatment; to assume no farther direction of the case unless it be expressly desired; and, in the latter case to request an immediate consultation with the practitioner previously employed.

SECTION 6. A wealthy physician should not give advice *gratis* to the affluent, because his so doing is an injury to his professional brethren. The office of the physician can never be suported as an exclusively beneficent one, and it is defrauding, in some degree, the common fund when fees are dispensed with which might justly be claimed.

SECTION 7. When a physician who has been engaged to attend a case of midwifery is absent, and another is sent for, if delivery is accomplished in the absence of the former, the latter is entitled to the fee, but he should resign the patient to the practitioner first engaged.

Article VI.—Of Differences Between Physicians.

SECTION 1. Diversity of opinion and opposition of interests may, in the medical, as in other professions, sometimes occasion controversy and even contention. When such cases occur and cannot be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians or a *court medical*.

Article VII.—Of Pecuniary Acknowledgments.

SECTION 1. Some general rules should be adopted by the physicians in every town or district relative to pecuniary acknowledgments from patients. These should be adhered to by physicians as uniformly as circumstances will permit. They serve, likewise, as a standard to which appeal may be taken in cases of doubt or dispute.

SECTION 2. Members of the medical profession have been so uniformly in the habit of attending, gratuitously, the indigent sick, and, in general, of answering every call promptly and without a question as to whether they are to receive remuneration therefor, that many persons seem to think they have a right to demand the service of physicians, and do, in fact, call upon them freely, and neglect or

refuse to render any pecuniary equivalent, although abundantly able to do so. They impose upon one physician in this way until they have exhausted his patience, and then call upon another; and thus, in the course of a few years, make the circuit of the profession in their neighborhood. It is proper for the physicians of a community to make a list of the names of such individuals, and to demand, before visiting those whose names are on it, adequate security that their *honorarium* will be paid.

PART III.

THE RECIPROCAL DUTIES AND OBLIGATIONS OF PHYSICIANS AND THE PUBLIC.

Article I.—Duties of Physicians to the Public.

SECTION 1. As good citizens, it is the duty of physicians to be vigilant for the welfare of the community and to bear their part in sustaining its institutions and burdens. They should be always ready to give counsel to the public in relation to matters appertaining to their *profession*, as, for example, on subjects of medical police, public hygiene and legal medicine. It is their province to enlighten the public in regard to quarantine regulations, the location, arrangements and dietaries of hospitals, asylums, schools, prisons and similar institutions; in relation to the medical police of towns, drainage, ventilation, etc., and in regard to measures for the prevention of epidemic and contagious diseases. And, when pestilence prevails it is their duty to face the danger and to continue their labors for the alleviation of suffering and the saving of life, even at the risk of their own lives.

SECTION 2. Physicians should always be ready, when called on by the proper authorities, to enlighten coroners' inquests and courts of justice on matters strictly medical, such as involve questions relating to insanity, legitimacy, or sudden and violent deaths, and in regard to the various other subjects embraced in the science of medical jurisprudence. But, in these cases, and especially where they are required to make post-mortem examinations, it is just and right, in consequence of the time, labor and skill required and the responsibility and risk they incur, that the public should award them more than a mere consulting fee.

SECTION 3. There is no profession, by the members of which eleemosynary services are more freely dispensed than they are by physicians; but justice demands that some limits should be placed to the claims upon such offices at their hands. Poverty, professional brotherhood, the benevolent and scantily remunerated occupation of the individual patient, and certain of the public duties referred to in Section 1 of this Article, should always be recognized as presenting valid claims for gratuitous services. But neither institutions endowed by the public or by rich individuals, societies for mutual benefit, for the insurance of lives or for analogous purposes, nor any profession or occupation can be admitted to possess such privilege. Nor can it be justly expected of physicians to furnish certificates of inability to serve on juries, or perform military duty, or to certify to the state of health of parties wishing to insure their lives, obtain pensions or the like, without a pecuniary acknowledgment. But to indigent persons such professional services should always be cheerfully and freely accorded.

Article II.—Obligations of the Public to Physicians.

SECTION 1. The benefit accruing to the public, directly and indirectly, from the active and constant labors and beneficence of the medical profession are so numerous and important that physicians are justly entitled to the utmost consideration from the community. The public ought, likewise, to entertain a just appreciation of the proper qualifications of a practitioner of medicine; to make a due discrimination between true science and the assumptions of ignorance and empiricism; to afford every encouragement and facility for the acquisition of medical education, and not to allow the provisions of their statute books or of the prospectus of their chartered institutions to interpose any obstacles to the attainment of the fullest knowledge of every branch of medical science, or in any way, to restrain the most entire freedom of thought, investigation and action in matters appertaining to the practice of medicine.

OFFICERS OF THE SOCIETY FROM ITS ORGANIZATION TO THE PRESENT TIME.

PRESIDENTS.

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1868. C. PRESTON, M. D.
1869. W. WILLIAMSON, M. D.
1870. O. B. GAUSE, M. D.
1871. M. COTE, M. D.
1872. J. H. MARSDEN, M. D.
1873. B. W. JAMES, M. D. (February.)
1873. J. F. COOPER, M. D. (October.)
1874. C. A. STEVENS, M. D.
1875. R. J. McCLATCHEY, M. D.
1876. J. E. JONES, M. D.
1877. J. C. BURGHER, M. D.
1878. H. N. GUERNSEY, M. D.
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1890. C. F. BINGAMAN, M. D.
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1908. W. F. EDMUNDSON, M. D.

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1872. H. N. GUERNSEY, M. D.
1873. M. PRESTON, M. D. (February.)
1873. M. FRIESE, M. D. (October.)
1874. I. LEFEVRE, M. D.
1875. J. E. JONES, M. D.
1876. J. C. BURGHER, M D.
1889. C. F. BINGAMAN, M. D.
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1905. C. P. SEIP, M. D.
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1907. ANNA JOHNSTON, M. D.
1908. J. M. MAURER, M. D.

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1872. S. F. CHARLTON, M. D.
1873. J. C. BURGHER, M. D. (February.)
1873. H. R. FETTERHOFF, M. D. (October.)
1874. W. F. SPETH, M. D.
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1877. J. E. JAMES, M. D.
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1892 SARAH J. COE, M. D.
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1905. W .G. DIETZ, M D.
1906. ANNA D. VARNER, M. D.
1907. J. D. BOILEAU, M. D.
1908. F. B. QUACKENBUSH, M. D.

RECORDING SECRETARIES.

1866-1872. B. W. JAMES, M. D.
1873-1878. M. M. WALKER, M. D.
1879-1882. Z. T. MILLER, M. D.
1883. T. M. STRONG, M. D.
1884, 1885. C. BARTLETT, M. D.
1886, 1887. H. F. IVINS, M. D.
1888, 1889. J. H. CLOSSON, M. D.
1890-1894. J. R. HORNER, M. D.
1895. E. M. GRAMM, M. D.
1896-1908. G. B. MORELAND, M. D.

CORRESPONDING SECRETARIES.

1866-1872. R. J. McCLATCHEY, M. D.
1873-1875. P. DUDLEY, M. D.
1876-1879. J. C. GUERNSEY, M. D.
1880-1885. R. E. CARUTHERS, M. D.
1886-1888. C. BARTLETT, M. D.
1889-1894. E. R. SNADER, M. D.
1895. J. R. HORNER, M. D.
1896-1908. E. M. GRAMM, M. D.

TREASURERS.

1866. D. COWLEY, M. D.
1867. H. H. HOFMAN, M. D.
1868. W. WILLIAMSON, M. D.
1870. W. J. BLAKELY, M D.
1871-1873. (February) O. B. GAUSE, M. D.
1873. (October) and 1874. R. J. McCLATCHEY, M. D.
1875-1899. J. F. COOPER, M. D.
1900-1908. ELLA D. GOFF, M. D.

NECROLOGISTS.

1872-1883. W. R. CHILDS, M. D.
1884. M. M. WALKER, M. D.
1885-1889. W. R. CHILDS, M. D.
1890-1894. W. J. MARTIN, M. D.
1895-1896. T. S. DUNNING, M. D.
1897-1901. T. L. BRADFORD, M. D.
1902. J. W. HASSLER, M. D.
1903-1906. C. WEAVER, M. D.
1907-1908. WILLIAM F. BAKER, M. D.

LIST OF MEMBERS.

1899—Adams, T. Louis, M. D., 1831 Chestnut Street, Philadelphia.
1907—Africa, E. S., M. D., Homœopathic Hospital, Pittsburgh.
1905—Allen, John V., M. D., 4637 Frankford Ave., Philadelphia.
1907—Andrews, P. A., M. D., Allentown.
1907—Armor, Russell B., M. D., Crafton.
1907—Arnold, B. G., M. D., Downingtown.
1899—Arthur, Alexander B., M. D., 2039 Spring Garden Street, Philadelphia.
1899—Artz, Jerome L., M. D., 30th and Westfield Streets, Camden, N. J.
1898—Ashcraft, Leon T., M. D., 2103 Chestnut Street, Philadelphia.
1892—Baier, George F., M. D., Norwood.
1906—Baily, A. W., M. D., 1809 Pacific Ave., Atlantic City, N. J.
1901—Baker, A. L., M. D., Altoona.
1896—Baker, Albra W., M. D., 3d and West Streets, Williamsport.
1908—Baker, Lydia Reinhold, M. D., Williamsport.
1906—Baker, William F., M. D., 1425 Spruce Street, Philadelphia.
1905—Bamberger, F. E., M. D., 20 N. 7th Street, Lebanon.
1905—Barclay, H. B., M. D., Greensburg.
1905—Barker, Walter C., M. D., 2043 Girard Ave., Philadelphia.
1898—Barnes, Alonzo M., M. D., 3517 N. Broad Street, Philadelphia.
1881—BARTLETT, CLARENCE, M. D., 1437 Spruce Street, Philadelphia.
1905—Bartine, C. W., M. D., 253 W. Hansberry Street, Philadelphia.
1889—Bayley, Weston D., M. D., 124 S. 16th Street, Philadelphia.
1902—Belville, J. E., M. D., 5915 Green Street, Gtn., Philadelphia.
1904—Bernstein, Ralph, M. D., 37 S. 19th Street, Philadelphia.
1875—BETTS, B. F., M. D., 1609 Girard Ave., Philadelphia.
1904—Betts, Norman S., M. D., 1809 Chestnut Street, Philadelphia.
1904—Bibighaus, J. R., M. D., Glenside.
1907—Bickley, G. H., M. D., 1429 S. Broad Street, Philadelphia.
1905—Biddle, J. T., M. D., 515 W. Main Street, Monongahela.

1886—BIER, P. A., M. D., 4200 Butler Street, Pittsburgh.
1900—Bierman, H., M. D., Bloomsburg.
1906—Bigelow, W. S., M. D., Phillipsburg.
1906—Bigler, C. Albert, Jr., M. D., 1503 Locust Street, Philadelphia.
1873—BINGAMAN, C. F., M. D., 412 Pittsburgh Life Bldg., Pittsburgh.
1907—Bittner, Albert J., M. D., Allentown.
1907—Black, James A., M. D., 423 Charles Street, S. S., Pittsburgh.
1905—Blackburn, E C., M. D., 322 Elmira Street, Williamsport.
1906—Blackledge, Theron L., M. D., 1221 Third Ave., New Brighton.
1906—Blair, Alexander O., M. D., Stevenson Building, Pittsburgh.
1892—Blair, W. W., M. D., 400 Penn Ave., Pittsburgh.
1904—Blake, Eva N., M. D., 190 Maplewood Ave., Philadelphia.
1898—Boericke, Felix A., M. D., 1011 Arch Street, Philadelphia.
1908—Boericke, Oscar E., M. D., 1846 N. 18th Street, Philadelphia.
1905—Bohn, Daniel, M. D., 1021 Seventh Ave., Altoona.
1892—Boileau, John D., M. D., 804 W. Lehigh Ave., Philadelphia.
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1908—Bomberger, W. E. J., M. D., 1446 Market Street, Harrisburg.
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1872—BOWIE, A. P., M. D., 702 First Nat'l. Bank Bldg., Uniontown.
1882—BOYER, FRANCIS W., M. D., 217 Mahantongo Street, Pottsville.
1907—Bradford, G. M., M. D., Mt. Morris.
1906—Bradford, Thomas Lindsley, M. D., 1862 Frankford Ave., Philadelphia.
1904—Bradley, Thomas B., M. D., 960 N. 5th Street, Philadelphia.
1883—BRANSON, MARY, M. D., 1719 Arch Street, Philadelphia.
1906—Brewster, F. D., M. D., 309 Jefferson Ave., Scranton.
1898—Brickley, E. W., M. D., York.
1907—Briggs, H. G., M. D., 704 Bessemer Bldg., Pittsburgh.
1904—Brooks, Charles M., M. D., 1409 N. 15th Street, Philadelphia.
1905—Brose, George W., M. D., 417 W. Market Street, York.
1906—Brown, C. Sheble, M. D., 3046 Frankford Ave., Philadelphia.

1905—Brown, L. S., M. D., Pittsburg Life Bldg., Pittsburgh.
1894—Brown, S. G. A., M. D., Shippensburg.
1905—Browne, William C., M. D., Burnside.
1904—Brownell, C. M., M. D., Stroudsburg.
1893—Bryson, H. Ballou, M. D., 312 Pittsburgh Life Bldg., Pittsburgh.
1886—BULICK, T. M., M. D., 317 N. Second Street, Harrisburg.
1877—BULLARD, J. A., M. D., 200 S. Franklin Street, Wilkes-Barre.
1881—BUNTING, H. M., M. D., 521 Swede Street, Norristown.
1907—Burnite, J. T., M. D., Brownsville.
1905—Byer, J. M., M. D., Bustleton.
1907—Caldwell, Charles S., M. D., 2219 Woodstock Ave., Swissvale.
1906—Calhoun, John C., M. D., 904 Western Ave., Allegheny.
1907—Carmalt, Horace G., M. D., 333 Grandview Ave., Pittsburgh.
1888—Carmichael, T. H., M. D., 7127 Germantown Ave., Philadelphia.
1897—Carter, Woodward D., M. D., 1315 South Broad Street, Philadelphia.
1906—Casselberry, R. C., M. D., 700 Madison Street, Chester.
1898—Challinor, S. Boyd, M. D., 3619 Forbes Street, Pittsburgh.
1905—Champlin, H. W., M. D., Walters Park.
1905—Chantler, I. B., M. D., 537 Beaver Street, Sewickley.
1875—CHAPMAN, MILLIE J., M. D., 219 Sixth Street, Pittsburgh.
1900—Chase, Theo. L., M. D., 1604 Walnut Street, Philadelphia.
1905—Cheesman, Walter C., M. D., 211 N. 52d Street, Philadelphia.
1908—Cheney, Howard, M. D., Williamsport.
1906—Chisolm, H. C., M. D., 528 Penn Street, Huntingdon.
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1902—Clark, Ernest L., M. D., Media.
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1901—Cooper, R. C., M. D., 1111 Federal Street, Allegheny.
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1907—Coy, Herbert B., M. D., 2724 Girard Ave., Philadelphia.
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1906—Dehoff, J. W., M. D., 480 W. Market Street, York.
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1866—DETWILLER, JOHN J., M. D., 52 Centre Square, Easton.
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1907—Eberhard, Harry M., M. D., 1710 N. 18th Street, Philadelphia.
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1873—EDMUNDSON, W. F., M. D., 3509 Fifth Ave., Pittsburgh.
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1908—Gerberich, Guy A., M. D., Lebanon.
1908—Gerberich, H. L., M. D., Lebanon.
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1894—Gittens, Theodore P., M. D., 1716 Diamond Street, Philadelphia.
1905—Gladwin, F. E., M. D., 2204 N. 17th Street, Philadelphia.
1908—Glenn, Edwin A., M. D., 2d and Chestnut Streets, Berwick.
1891—Goff, Ella D., M .D., Library Place, N. Diamond Street, E. Allegheny.
1903—Golden, G. Morris, M. D., 1449 Venango Street, Philadelphia.
1907—Goodsell, J. W., M. D., New Kensington.
1883—GRAMM, EDWARD M., M. D., 1833 Chestnut Street, Philadelphia.
1883—GRAMM, THEO. J., M. D., 846 N. Broad Street, Philadelphia.
1904—Gray, T. C., M. D., Easton.
1895—Gregg, Edw. R., M. D., 334 S. Highland Ave., Pittsburgh.
1905—Greno, R. M., M. D., Arnold.
1905—Griffith, J. B., M. D., 48 Chestnut Street, Lewistown.
1888—Griffith, Louis B., M. D., 2449 Columbia Ave., Philadelphia.
1905—Griggs, William B., M. D., 1449 N. 10th Street, Philadelphia.
1874—GUERNSEY, J. C., M. D., 1923 Chestnut Street, Philadelphia.
1894—Haas, George H., M. D., 121 N. 8th Street, Allentown.

1885—HAINES, O. S., M. D., 137 N. 15th Street, Philadelphia.
1904—Haller, George C., M. D., 4564 Wayne Ave., Philadelphia.
1907—Haman, Charles R., M. D., Reading.
1887—HAMAN, W. A., M. D., 122 N. 8th Stret, Reading.
1906—Hamilton, Samuel, Jr., M. D., 5601 Stanton Ave., Pittsburgh.
1908—Hammond, Nathan B., M. D., 49 N. 52d Street, Philadelphia.
1904—Hammond, W. Nelson, M. D., 1424 Poplar Street, Philadelphia.
1899—Harner, D. W., M. D., 1930 Chestnut Street, Philadelphia.
1891—Harpel, F. E., M. D., 211 Ferry Street, Danville.
1904—Harpel, G. W., M. D., 3d and Maple Streets, Mt. Carmel.
1884—HARRIS, D. R., M. D., 41 N. Jefferson Street, New Castle.
1906—Hartley, Arthur, M. D., 2101 Susquehanna Ave., Philadelphia.
1904—Hartman, G. Willis, M. D., 1207 N. 3d Street, Harrisburg.
1883—HASSLER, W. A., M. D., 105 N. 8th Street, Allentown.
1895—Heilner, H. F., M. D., Burr Bldg., Scranton.
1905—Heimbach, A. E., M. D., Renovo.
1905—Heimbach, J. M., M. D., Kane.
1899—Hendrixson, Lewis H., M. D., 5615 Wyalusing Ave., Philadelphia.
1907—Hennington, J. G., M. D., Uniontown.
1892—Heritage, A. C., M. D., Jenkintown.
1904—Heritage, J. B., M. D., Langhorne.
1904—Hess, H. P., M. D., Pine Grove.
1902—Heysinger, Isaac W., M. D., 1521 Poplar Street, Philadelphia.
1892—Hill, E. H., M. D., Pittston.
1906—Hillegas, Wm. M., M. D., 1001 Belmont Ave., Philadelphia.
1882—HOFFMAN, C. H., M. D., 510 S. Highland Ave., Pittsburgh.
1903—Holben, Malcolm D., M. D., Slatington.
1883—HOLBEN, M. J., M. D., Slatington.
1905—Holcombe, William B., M. D., 1509 Girard Ave., Philadelphia.
1905—Hollowell, James, M. D., Parkesburg.
1906—Holsberg, W. H., M. D., 927 Cumberland Street, Lebanon.

1904—Hood, Joseph R., M. D., Sewickley.
1906—Harnecker, J. C., M. D., 3813 Forbes Ave., Pittsburgh.
1908—Howell, Ellen E. Woodward, M. D., 254 S. 16th Street, Philadelphia.
1904—Howell, Frederick E., M. D., 307 N. 5th Street, Reading.
1905—Huber, W. H., M. D., Edge Hill.
1905—Humes, James R., M. D., Hollidaysburg.
1905—Humes, John H., M. D., Hollidaysburg.
1904—Humphreys, E., M. D., 131 N. 15th Street, Philadelphia.
1905—Hunsicker, William C., M. D., 201 N. 17th Street, Philadelphia.
1905—Huston, Arthur F. P., M. D., 407 Taylor Ave., N. S., Pittsburgh.
1906—Imes, Thomas C., M. D., 518 S. 15th Street, Philadelphia.
1886—INGERSOLL, W. K., M. D., 4008 Chestnut Street, Philadelphia.
1907—Insley, William W., M. D., Donora.
1907—Jackson, Frank B., M. D., 15 W. 1st Street, Oil City.
1903—James, D. B., M. D., 1819 Chestnut Street, Philadelphia.
1867—JAMES JOHN E., M. D., 1521 Arch Street, Philadelphia.
1902—James, John Edwin, Jr., M. D., 1819 Chestnut Street, Philadelphia.
1906—Jamison, M. R., M. D., Greensburg.
1881—JOHNSON, THEODORE M., M. D., 200 Susquehanna Ave., Pittston.
1901—Johnston, Anna, M. D., 5016 Liberty Ave., Pittsburgh.
1905—Johnston, J. E., M. D., 7035 Hamilton Ave., Pittsburgh.
1908—Karsner, Charles W., M. D., 1320 S. Broad Street, Philadelphia.
1889—Kase, Edmund H., M. D., 1325 Girard Ave., Philadelphia.
1891—Kaufman, John, M. D., Hazleton.
1905—Kauffman, A. B., M. D., 28 E. Walnut Street, Lancaster.
1885—KEIM, WILLIAM H., M. D., 1716 N. 18th Street, Philadelphia.
1905—Keller, J. D., M. D., 139 Carlisle Street, Hanover.
1905—Kessler, H. D., M. D., Altoona.
1904—Kiefer, J. D., M. D., Mt. Carmel.
1907—Kieffer, W. J., M. D., 373 N. 8th Street, Lebanon.

1908—Killian, W. T., M. D., 5615 Wyalusing Ave., Philadelphia.
1901—Kinney, C. Spencer, M. D., Easton.
1906—Kistler, A. L., M. D., N. E. Cor. 9th and Linden Streets. Allentown.
1908—Kistler, D. S., M. D., 307 S. Franklin Street, Wilkes Barre.
1904—Kistler, Grant M., M. D., Lansford.
1904—Kistler, Horace E., M. D., 313 Main Street, Johnstown.
1904—Kistler, J. S., M. D., Shenandoah.
1904—Kistler, M. S., M. D., Shenandoah.
1905—Kistler, Seth W., M. D., Nanticoke.
1904—Kistler, W. F., M. D., Minersville.
1891—Kline, D. C., M. D., 5th and Chestnut Streets, Reading.
1908—Klock, E. L., M. D., Branch Dale.
1908—Klock, Joseph V., M. D., Mahanoy City.
1906—Knerr, Bayard, M. D., 1137 Spruce Street, Philadelphia.
1877—KNERR, C. B., M. D., 1833 Chestnut Street, Philadelphia.
1907—Knerr, Levi J., M. D., 55 N. 40th Street, Philadelphia.
1907—Koons, F. W., M. D., Homœopathic Hospital, Pittsburgh.
1872—KORNDŒRFER, AUGUSTUS, SR., M. D., 1728 Green Street, Philadelphia.
1896—Korndœrfer, Augustus, Jr., M. D., 142 N. 18th Street, Philadelphia.
1900—Kreider, J. H., M. D., Lykens.
1900—Kressley, J. A., M. D., New Tripoli.
1896—Krusen, Edward A., M. D., 409 Cherry Street, Norristown.
1905—Lacy, Henry A., M. D., 743 N. 17th Street, Philadelphia.
1908—Landis, D. M., M. D., Perkasie.
1903—Lane, Nathaniel F., M. D., 1620 Green Street, Philadelphia.
1907—Lawrence, Frank H., M. D., 1518 Perkiomen Ave., Reading.
1888—Layman, Alfred, M. D., 1630 N. 18th Street, Philadelphia.
1907—Leas, F. C., M. D., 400 S. 40th Street, Philadelphia.
1905—Leopold, H. P., M. D., 1829 Chestnut Street, Philadelphia.
1905—Leslie, Edward C., M. D., 5709 Penn Ave., Pittsburgh.
1905—Levis, George E., M. D., 1746 Orthodox Street, Philadelphia.
1907—Lewis, Margaret C., M. D., 4027 Spring Garden Street, Philadelphia.
1894—Lichtenwalner, A. B., M. D., 2435 N. 7th Street, Philadelphia.
1906—Livingston, M. W., M. D., Latrobe.

1905—Locke, M. J., M. D., Bellefonte.
1907—Long, Howard, W., M. D., 1534 W. Lehigh Ave., Philadelphia.
1905—Longwell, Demerest W., M. D., Tioga.
1904—Longwell, J. P., M. D., Wellsboro.
1904—Loos, Julia C., M. D., 30 N. 2d Street, Harrisburg.
1868—MACFARLAND, MALCOLM, M. D., 1805 Chestnut Street, Philadelphia.
1908—Mackenzie, G. W., M. D., 1833 Chestnut Street.
1886—MADDUX, D. P., M. D., 801 Madison Street, Chester.
1906—Malin, William H., M. D., 8408 Germantown Ave., Chestnut Hill, Philadelphia.
1905—Mann, S. S., M. D., Columbia.
1906—Mansfield, Harry K., M. D., 19 W. Chelten Ave., Germantown, Philadelphia.
1881—MANSFIELD, J. R., M. D., 5620 Germantown Ave., Philadelphia.
1904—Mantz, E. S., M. D., South Bethlehem.
1906—Marks, William F., M. D., 118 N. 9th Street, Reading.
1906—Marsden, Biddle R., M. D., Chestnut Hill, Philadelphia.
1883—MARSHALL, ANNA M., M. D., 1437 Chestnut Street, Philadelphia.
1891—Marshall, R. S., M. D., 424 Shady Ave., Pittsburgh.
1905—Marshall, Watson, M. D., Diamond Bank Bldg., Pittsburgh.
1877—MARTIN, W. J., M. D., 5440 Centre Ave., Pittsburgh.
1906—Martin, W. Joline, M. D., 553 Trenton Ave., Wilkinsburg.
1905—Massey, Franklin F., M. D., Womelsdorf.
1904—Matlack, Thomas, M. D., 2356 E. York Street, Philadelphia.
1907—Maurer, E. H., M. D., Ashland.
1878—MAURER, J. M., M. D., 97 W. Wheeling Street, Washington.
1907—Maust, George W., M. D., Lock Haven.
1907—McBride, L. E., M. D., Franklin.
1905—McCauley, E. S. H., M. D., Beaver.
1891—McCauley, J. C., M. D., 128 Connecticut Street, Rochester.
1879—McCLELLAND, J. B., M. D., 409 Penn Ave., Pittsburgh.
1867—McCLELLAND, J. H., M. D., 5th and Wilkins Ave., Pittsburgh.

1884—McCLELLAND, R. W., M. D., 5th and Wilkins Ave., Pittsburgh.
1883—McCLURE, ELIZA H. LANG, M. D., 1919 Wallace Street, Philadelphia.
1893—McCracken, William, M. D., 209 St. Clair Street, South Pittsburgh.
1903—McDowell, A. S., M. D., 155 N. 5th Street, Reading.
1907—McEldowney, J., M. D., 4939 Catharine Street, Philadelphia.
1906—Mercer, Edward W., M. D., 1705 Arch Street, Philadelphia.
1871—MERCER ROBERT P., M. D., 223 W. 3d Street, Chester.
1905—Mercer, Warren C., M. D., 1705 Arch Street, Philadelphia.
1907—Merkel, George A., M. D., Minersville.
1896—Merrell, A. F., M. D., Hallstead.
1907—Merrill, Benjamin E., M. D., Dent's Run.
1905—Metzger, Irwin D., M. D., Tyrone.
1871—MIDDLETON, CALEB S., M. D., 1523 Girard Ave., Philadelphia.
1904—Miller, C. R., M. D., 198 S. 2d Street, Steelton.
1904—Miller, M. L., M. D., Mohnton.
1905—Miller, Seth S., M. D., Susquehanna.
1887—MILLER, Z. T., M. D., 2023 Carson Street, S. S., Pittsburgh.
1900—Minahan, Thomas, M. D., Carnegie.
1906—Monroe, J. E., M. D., Orange, Mass.
1893—Moon, S. B., M. D., 50 Cathedral Parkway, New York, N. Y.
1901—Moore, J. E., M. D., 319 Main Ave., Carnegie.
1893—Moreland, George B., M. D., Keenan Bldg., Liberty Ave. and 7th Street, Pittsburgh.
1908—Morozzi, A. C., M. D., Honey Brook.
1906—Morris, Frederick S., M. D., Homœopathic Hospital, Pittsburgh.
1901—Morrow, Emory H., M. D., Altoona.
1908—Moyer, S. C., M. D., Lansdale.
1908—Moyer, William G., M. D., Lansdale.
1891—Mueller, G. A., M. D., Empire Bldg., Liberty Ave. and 5th Street, Pittsburgh.
1906—Muhly, Edward G., M .D., 1627 S. Sixth Street, Philadelphia.
1908—Mumford, Mary D., M. D., Meadville.

1888—Murdock, Robert, M. D., 160 S. Main Street, Wilkes-Barre.
1907—Murphy, John, M. D., Loretta.
1901—Muth, F. L., M. D., Wilmerding.
1894—Myers, Charles Elwood, M. D., 170 Green Lane, Manayunk, Philadelphia.
1907—Nesbit, Edwin L., M. D., Bryn Mawr.
1908—Neumuller, M. H., M. D., Lansford.
1904—Nicholson, Harland C., M. D., 2000 Wallace Street, Philadelphia.
1907—Nicholson, H. S., M. D., 1002 Empire Bldg., Pittsburgh.
1893—Northrop, H. L., M. D., Flanders Bldg., 15th and Walnut Streets, Philadelphia.
1905—Nuss, W. W., M. D., Wissinoming, Philadelphia.
1907—Osborn, James A., M. D., 130 S. Front Street, Milton.
1906—Palen, Gilbert J., M. D., 1831 Chestnut Street, Philadelphia.
1896—Palmer, Charles R., M. D., West Chester.
1904—Palmer, Wayland R., M. D., Hollidaysburg.
1906—Parker, G. W., M. D., 5030 Market Street, Philadelphia.
1881—PARSONS, E. C., M. D., 275 Walnut Street, Meadville.
1897—Paxson, O. H., M. D., 1733 Arch Street, Philadelphia.
1900—Peck, John L., M. D., 524 Vine Street, Scranton.
1881—PERKINS, C. W., M. D., 403 Broad Street, Chester.
1908—Perkins, Roscoe L., M. D., 1207 N. 3d Street, Harrisburg.
1907—Peterman, J. F., M. D., 523 Cumberland Street, Lebanon.
1908—Peters, Byron M., M. D., Jenkintown.
1908—Peters, W. C., M. D., State Street, Harrisburg.
1883—PETTINGILL, ELIZA F., M. D., 300 N. 10th Street, Philadelphia.
1891—Phillips, Joseph R., M. D., 15 E. 8th Street, Erie.
1906—Pierce, Ward I., M. D., Diamond Bank Building, Pittsburgh.
1908—Pines, J. Darwin, M. D., 2123 N. 19th Street, Philadelphia.
1897—Piper, R. L., M. D., Tyrone.
1905—Piper, William Scott, M. D., Clearfield.
1880—PITCAIRN, HUGH, M. D., 206 State Street, Harrisburg.
1907—Platt, Charles, M. D., 3612 Baring Street, Philadelphia.
1906—Plush, Samuel M., M. D., 319 S. 10th Street, Philadelphia.
1906—Pond, Edward H., M. D., 902 Keenan Bldg., Liberty Ave. and 7th Street, Pittsburgh.

1886—POSEY, L. P., M. D., 1807 Walnut Street, Philadelphia.
1896—Powel, Franklin, M. D., Madison and 5th Streets, Chester.
1907—Powell, Howard, M. D., Glenside.
1883—POWELL, W. C., Jr., M. D., Bryn Mawr.
1871—PRATT, TRIMBLE, M. D., Media.
1907—Price, D. J., M. D., Shenandoah.
1900—Prizer, E. T., M. D., Lancaster.
1907—Proctor, W. M., M. D., Braddock.
1896—Pursell, James P., M. D., Sellersville.
1904—Quackenbush, F. B., M. D., 4700 Chester Ave., Philadelphia.
1906—Ramsey, H. E., M. D., 3715 California Ave., Pittsburgh.
1897—Raue, C. Sigmund, M. D., 1626 Walnut Street, Philadelphia.
1906—Reading, J. H., M. D., 1811 Green Street, Philadelphia.
1906—Reading, L. W., M. D., 1629 Green Street, Philadelphia.
1888—Reading, Thomas, M. D., Hatboro.
1896—Redman, John L., M. D., 1336 Spruce Street, Philadelphia.
1906—Reeves, Joseph M., M. D., 1525 Spruce Street, Philadelphia.
1905—Reich, George R., M. D., Marietta.
1908—Reily, W. Edgar, M. D., Clearfield.
1907—Reinhold, Hannah C., M. D., 761 W. 4th Street, Williamsport.
1908—Reith, John W., M. D., 234 W. Chestnut Street, Lancaster.
1904—Reitz, J. J., M. D., Walnutport.
1905—Rhodes, C. M., M. D., 914 N. 6th Street, Harrisburg.
1908—Rhodes, Henry H., M. D., Middletown.
1908—Rice, Robert, M. D., Crozer Hospital, Chester.
1904—Richards, Charles M., M. D., 13 N. 9th Street, Reading.
1905—Richards, F. L., M. D., Mt. Joy.
1908—Richtstine, F. B., M. D., Sunbury.
1896—Ridge, Jonathan T., M. D., 1617 N. 7th Street, Philadelphia.
1907—Riegel, A. J., M. D., Lebanon, 368 N. 8th Street.
1908—Rieger, Charles L. W., M. D., 1855 Marvine Street, Philadelphia.
1878—RINEHART, C. C., M. D., 4637 Centre Ave., Pittsburgh.
1907—Rittenhouse, J. S., M. D., Reading.
1907—Robinson, Walter P., M. D., Homœopathic Hospital, Pittsburgh.

1908—Robinsteen, Carl H., M. D., Homœopathic Hospital, Pittsburgh.
1904—Rochester, J. R., M. D., 863 N. 7th Street, Philadelphia.
1906—Roman, Desiderio, M. D., 1429 Poplar Street, Philadelphia.
1906—Roscoe, H. A., M. D., 404 Diamond Bank Bldg., Pittsburgh.
1905—Rosenberger, Henry D., M. D., Manheim.
1908—Rossiter, E. B., M. D., Pottstown.
1905—Roth, William F., M. D., Wilkes-Barre.
1894—Rotzell, W. E., M. D., 5542 Lansdowne Ave., Philadelphia.
1907—Rowland, John F., M. D., 430 N. 52d Street, Philadelphia.
1907—Sager, C. W., M. D., Titusville.
1906—Sample, Clyde W., M. D., 813 Wood Street, Wilkinsburg.
1888—Sandel, J. H., M. D., 49 Centre Ave., Plymouth.
1905—Sanderson, H. H., M. D., Johnstown.
1906—Sankey, B. E., M. D., 54 N. Jefferson Street, New Castle.
1907—Sappington, S. W., M. D., 1826 N. 13th Street, Philadelphia.
1872—SARTAIN, HARRIET J., M. D., 212 W. Logan Square, Philadelphia.
1901—Sawers, F. C., M. D., 5130 Second Ave., Pittsburgh.
1896—Schantz Henry F., M. D., 402 N. 5th Street, Reading.
1892—Schantz, M. Hassler, M. D., 402 N. 5th Street, Reading.
1908—Schofield, James D., M. D., Roxborough, Philadelphia.
1883—SCHREINER, EMMA T., M. D., 190 Maplewood Ave., Philadelphia.
1886—SEIBERT, W. A., M. D., 43 N. 4th Street, Easton.
1900—Seibert, Walter W., M. D., 43 N. 4th Street, Easton.
1907—Seidel, F. W., M. D., 372 Front Street, Reading.
1868—SEIP, C. P., M. D., 316 N. Highland Ave., Pittsburgh.
1905—Seip, Herman H., M. D., 316 N. Highland Ave., Pittsburgh.
1905—Seitz, W. C., M. D., Glen Rock.
1906—Shallcross, I. G., M. D., 1631 Arch Street, Philadelphia.
1906—Shannon, S. F., M. D., 603 N. 52d Street, Philadelphia.
1905—Sharbaugh, W. J., M. D., 607 24th Street, Altoona.
1885—SHELLENBERGER, C. N., M. D., 1st Nat'l Bank Bldg., Colorado Springs, Colo.
1907—Shepard, Warren B., M. D., Homœopathic Hospital, Pittsburgh.
1905—Shower, John A., M. D., 104 S. Beaver Street, York.

1903—Shute, A. Clement, M. D., 421 High Street, Pottstown.
1908—Sierer, A. L., M. D., 2003 N. 6th Street, Harrisburg.
1900—Simmons, C. W., M. D., 1628 N. 18th Street, Philadelphia.
1897—Simmons, S. S., M. D., Susquehanna.
1905—Simpson, K. S., M. D., Carnegie.
1906—Sloan, Malachi W., M. D., 4825 Baltimore Ave., Philadelphia.
1883—SLOUGH, F. J., M. D., 120 N. 8th Street, Allentown.
1907—Slough, W. C. J., M. D., Emaus.
1908—Small, Standley G., M. D., N. S., Pittsburgh.
1892—Smedley, Charles D., M. D., Wayne.
1907—Smith, Clarence R., M. D., 6338 Woodbine Ave., Philadelphia.
1908—Smith, E. B., M. D., Union City.
1907—Smith, Frederick W., M. D., 1430 Wolfe Street, Philadelphia.
1889—Smith, George W., M. D., 806 N. Broad Street, Philadelphia.
1887—SNADER, E. R., M. D., 1919 Arch Street, Philadelphia.
1900—Snyder, E. S., M. D., Lancaster.
1904—Snyder, L. A., M. D., Ashland.
1894—Somerville, W. H., M. D., 1214 E. Columbia Ave., Philadelphia.
1896—Spahr, Charles E., M. D., 10 W. Market Street, York.
1904—Speakman, William W., M. D., 1831 Chestnut Street, Philadelphia.
1889—Spencer, William, M. D., 1623 Walnut Street, Philadelphia.
1907—Sperling, F. J. E., M. D., Wilkes-Barre.
1907—Sperling, John G., M. D., Wilkes-Barre.
1881—STAMBACH, H. L., M. D., 15 W. Victoria Street, Santa Barbara, Cal.
1906—Statler, Edgar C., M. D., 461 Linden Street, Allentown.
1908—Stauffer, Annie W., M. D., 1516 Montgomery Avenue, Philadelphia.
1907—Steckel, Ellwood K., M. D., Orwigsburg.
1905—Steele, William, Jr., M. D., 2340 N. 13th Street, Philadelphia.
1906—Stegmenn, Charles W., M. D., 4634 E. Thompson Street, Philadelphia.
1906— Steinmetz, Deacon, M. D., 1835 N. 17th Street, Philadelphia.

1907—Stephens, T. W., M. D., 814 Wood Street, Wilkinsburg.
1891—Stephens, W. R., M. D., 814 Wood Street, Wilkinsburg.
1904—Sterner, L. H., M. D., Porter's Sideling.
1894—Stewart, G. W., M. D., 1823 Chestnut Street, Philadelphia.
1903—Stewart, Wm. A., M. D., Lang and Thomas Aves., Pittsburgh.
1901—Stitzel, J. W., M. D., Hollidaysburg.
1906—Stokes, Lydia W., M. D., 1719 Arch Street, Philadelphia.
1904—Straub, D. W., M. D., Bethlehem.
1904—Straub, E. L., M. D., Minersville.
1907—Straube, Rudolph, M. D., 2822 Girard Ave., Philadelphia.
1907—Strayer, Robert F., M. D., 201 W. Market Street, York.
1905—Strock, Henry B., M. D., Bedford.
1885—STRONG, J. WILMER, M. D., 2049 N. 13th Street, Philadelphia.
1889—Strong, Walter, M. D., 2105 N. 13th Street, Philadelphia.
1904—Summers, Robert S., M. D., 2610 N. 12th Street, Philadelphia.
1907—Sunanday, F. W., M. D., Bernharts P. O.
1904—Super, A. H., M. D., Tamaqua.
1896—Sureth, Theodore, M. D., 1821 N. Main Ave., Scranton.
1905—Sutton, John C., M. D., 1231 Third Ave., New Brighton.
1904—Swalm, T. W., M. D., Pottsville.
1906—Swartz, J. Ross, M. D., Harrisburg.
1906—Swick, J. Howard, M. D., Beaver Falls.
1908—Sylvis, William M., M. D., 1533 S. 18th Street, Philadelphia.
1901—Taylor, Amos O., M. D., 1415 12th Ave., Altoona.
1905—Taylor, G. P., M. D., Columbia.
1906—Taylor, Howard W., M. D., 316 Collins Ave., Pittsburgh.
1907—Taylor, William S., M. D., Malvern.
1904—Tegtmeier, C. E., M. D., 1237 Shackamaxon Street, Philadelphia.
1905—Tegtmeier, C. F., M. D., 117 Fourth Ave., Conshohocken.
1906—Terry, Howard, Jr., M. D., 226 Church Street, Phœnixville.
1907—Thacher, George H., M. D., 2008 Chestnut Street, Philadelphia.
1906—Thatcher, J. W., M. D., 35th and Hamilton Streets, Philadelphia.

1906—Thomas, C. L., M. D., 2802 Columbia Ave., Philadelphia.
1877—THOMAS, CHARLES MONROE, M. D., 1825 Chestnut Street, Philadelphia.
1907—Thomas, Delano C., M. D., Forbes and Atwood Streets, Pittsburgh.
1906—Thomas, Edward C., M. D., 711 N. 43d Street, Philadelphia.
1906—Thompson, J. G., M. D., 703 Third Ave., New Brighton.
1886—THOMPSON, J. H., M. D., Fulton Bldg., Pittsburgh.
1887—THOMPSON, LANDRETH W., M. D., 1701 Green Street, Philadelphia.
1907—Thurston, Leon, M. D., Empire Bldg., Pittsburgh.
1907—Tindall, Percy A., M. D., 1613 S. Broad Street, Philadelphia.
1891—Tomlin, R. E., M. D., 2057 N. 8th Street, Philadelphia.
1907—Tomlinson, W. H., M. D., 44 E. Walnut Lane, Philadelphia.
1905—Tripp, J. C., M. D., Warren Centre.
1908—Truter, C. W., M. D., Homœopathic Hospital, Pittsburgh.
1901—Tuller, John J., M. D., 2102 Chestnut Street, Philadelphia.
1906—Tyrrel, Urania, M. D., 154 N. 20th Street, Philadelphia.
1896—Ulrich, Silvester, M. D., Elizabethtown.
1906—Umstead, D. B., M. D., Tacony, 23d Ward, Philadelphia.
1883—VAN BAUN, W. W., M. D., 1404 Spruce Street, Philadelphia.
1886—VAN DEUSEN, EDWIN M., M. D., 2101 Tioga Street, Philadelphia.
1907—Van Keuren, J. C., M. D., Chester.
1896—Van Lennep, G. A., M. D., 1833 Chestnut Street, Philadelphia.
1881—VAN LENNEP, W. B., M. D., 1421 Spruce Street, Philadelphia.
1898—Van Tine, J. Lewis, M. D., 1706 Girard Ave., Philadelphia.
1901—Varner, Anna D., M. D., 616 Wood Street, Wilkinsburg.
1907—Vaughan, E. M., M. D., Royersford.
1905—Waaser, J. F., M. D., E. Mauch Chunk.
1904—Walker, H. Ellen, M. D., Sharon.
1907—Wallace, H. D., M. D., 412 Sandusky Street, Allegheny.
1907—Walley, L. P., M. D., Mifflintown.
1906—Walter J. A., M. D., Punxsutawny.
1896—Walter, Robert, M. D., Walters Park.

1894—Ware, H. B., M. D., Cor. Washington and Linden Streets, Scranton.
1906—Wasserman, Flora E., M. D., 1909 N. Broad Street, Philadelphia.
1904—Watson, Franklin, M. D., Willow Grove.
1894—Waylan, Julia Gould, M. D., 1832 Tioga Street, Philadelphia.
1894—Weaver, H. S., M. D., 1433 Spruce Street, Philadelphia.
1902—Weaver, W. A., M. D., 1331 Girard Ave., Philadelphia.
1894—Webster, Samuel C., M. D., Media.
1907—Weil, John H., M. D., 2838 N. 5th Street, Philadelphia.
1905—Wells, G. Harlan, M.D., 1623 Arch Street, Philadelphia.
1907—Wendt, C. I., M. D., 117 S. Highland Ave., Pittsburgh.
1905—Wesner, M. A., M. D., 407 Franklin Street, Johnstown.
1906—White, A. Grace, M. D., Bradford.
1889—White, Roland T., M. D., 914 Western Ave., Allegheny.
1904—Wiest, Harry G., M. D., Schuylkill Haven,
1907—Wilcox, Frederic P., M. D., 2031 Diamond Street, Philadelphia.
1899—Wilford, H. H., M. D., Bangor.
1906—Willard, Lewis D. W., M. D., 955 Western Ave., Allegheny.
1870—WILLETS, WILLIAM, M. D.
1907—Williams, Clara H., M. D., 822 Wood Street, Wilkinsburg Sta., Pittsburgh.
1907—Williams, C. C., M. D., 24 Washington Ave., S. S., Pittsburgh.
1903—Williams, Harry E., M. D., Coatesville.
1908—Williams, H. O., M. D., Lansdale.
1905—Williams, Olin A., M. D., Butler.
1908—Williams, William Rendell, M. D., 111 S. 42d Street, Philadelphia.
1908—Williams, W. Lear, M. D., Mt. Carmel.
1906—Williamson, M. S., M. D., 500 S. 42d Street, Philadelphia.
1905—Wilson, M. A., M. D., 140 E. 8th Street, Erie.
1908—Winget, S. E., M. D., Waynesburg.
1907—Witmeyer, H. C., M. D., 500 N. 8th Street, Lebanon.
1907—Wolfe, W. Wesley, M. D., 24 N. Diamond Street, W., Allegheny.
1907—Woodard, F. H., M. D., Sugar Grove.

1904—Wooldridge, F. V., M. D., 408 2d Avenue, Pittsburgh.
1904—Yale, Arthur W., M. D., 1901 Park Avenue, Philadelphia.
1908—Yeager, William H., M. D., 3300 N. 15th Street, Philadelphia.
1905—Yeagley, J. H., M. D., 127 E. Market Street, York.
1905—Yeagley, J. M., M. D., 144 N. Prince Street, Lancaster.
1906—Yocom, C. A., M. D., Carlisle.
1880—YODER, DANIEL, M. D., Catasauqua.
1907—Yost, George G., M. D., 643 N. 16th Street, Philadelphia.
1894—Ziegenfus, A. Frank, M. D., 1124 Wallace Street, Philadelphia.

HONORARY MEMBERS.

1883—Allen, H. C., M. D., 5142 Washington Ave., Chicago, Ill.
1898—Custis, J. B. Gregg, M. D., 110 E. Capitol Street, Washington, D. C.
1908—Horner, J. Richey, M. D., 655 Rose Bldg., Cleveland, Ohio.
1908—Jones, Gaius J., M. D., 310 Caxton Bldg., Cleveland, Ohio.
1876—Jones, S. A., M. D., Ann Arbor, Mich.
1900—Nash, E. B., M. D., Cortland, New York.
1883—Phillips, W. A., M. D., Cleveland, Ohio.
1898—Porter, Eugene H., M. D., 181 W. 73d Street, New York.
1892—Williamson, Alonzo P., M. D., Patton, San Bernardino Co., Cal.

CORRESPONDING MEMBERS.

1873—Alvarez, Paz, M. D., Madrid, Spain.
1873—Chauvet, Fernand, M. D., Tours, France.
1873—Eidherr, Francis, M. D., Vienna, Austria.
1893—Pope, Alfred C., M. D., London, England

NECROLOGICAL LIST.

1902—Adams, W. K., M. D., died July 17th, 1903.
1866—Ashton, A. H., M. D., died February 18th, 1883.
1899—Baker, Daniel J., died July 30, 1902.
1866—Barnaby, John E., M. D., died January 5th, 1869.
1867—Barrett, Charles B., M. D., died June 5th 1871.
1882—Bernard, H., M. D., died ———.
1903—Bigler, Bernard E., M. D., died February 20th, 1905.
1872—Bigler, William H., M. D., died December 10th, 1904.
1866—Blakeley, W. James, M. D., died January 14th, 1877.
1884—Boyd, G. S., M. D., died May 10th, 1901.
1870—Bratt, Benjamin R., M. D., died January 31st, 1872.
1896—Brewer, Mary, M. D., died June 10th, 1907.
1895—Brierly, Frank Walter, M. D., died June 17th, 1899.
1866—Brooks, Silas S., M. D., died July 2d, 1871.
1883—Brown, Samuel, M. D., died March 22d, 1892.
1891—Brown, Wm. K., M. D., died October 3d, 1900.
1885—Buchman, Francis, M. D., died July 14th, 1898.
1891—Burlingame, F. W., M. D., died ———.
1883—Burr, Richard, M. D., died March 30th, 1885.
1873—Caruthers, R. E., M. D., died January 3d, 1885.
1868—Charlton, S. T., M. D., died November 9th, 1886.
1863—Childs, William R., M. D., died November 11th, 1888.
1883—Coe, Sarah J., M. D., died November 4th, 1903.
1866—Cook, William H., M. D., died March 11th, 1879.
1866—Cooper, John F., M. D., died August 19th, 1899.
1866—Cote, M., M. D., died May 29th, 1878.
1866—Cowley, David, M. D., died October 30th, 1886.
1898—Cresson, Charles C., M. D., died ———.
1868—Dake, J. P., M. D. (honorary), died October 28th, 1894.
1891—Davis, B. L., M. D., died ———
1866—Detweiler, Henry, M. D., died April 21st, 1887.
1886—Dowling, John W., M. D. (honorary), died January 14th, 1892.
1871—Dreibelbis, David L., M. D., died March 24th, 1872.

1867—Dudley, Pemberton, M. D., died March 25th, 1907.
1878—Duff, P. S., M. D., died April 1st, 1904.
1870—Earhart, Jacob R., M. D., died June 23d, 1891.
1891—Ely, J., M. D., died ———.
1870—Farrington, E. A., M. D., died December 17th, 1885.
1904—Felsberg, Paul F., M. D., died October 28th, 1906.
1880—Ferson, John L., M. D., died July 12th, 1896.
1866—Freise, Michael, M. D., died February 4th, 1880.
1866—Frost, J. H. P., M. D., died January 21st, 1875.
1873—Fulton, H. W., died June 23d, 1907.
1889—Gangloff, Charles, M. D., died January 22d, 1898.
1866—Gardiner, Richard, M. D., died March 22d, 1877.
1866—Gause, O. B., M. D., died January 11th, 1895.
1905—Gerberich, M. B., M. D., died November 1st, 1905.
1899—Godshall, Samuel G., M. D., died April 4th, 1903.
1867—Gramm, Gustavus E., M. D., died November 2d, 1901.
1886—Griffith, Jethro J., M. D., died July 5th, 1893.
1881—Griffith, Silas, M. D., died May 21st, 1904.
1877—Griffith, Wm. M., M. D., died April 20th, 1903.
1877—Grumbeid, William, M. D., died ———.
1866—Guernsey, H. N., M. D., died June 27th, 1885.
1870—Guernsey, W. F., M. D., died February 16th, 1877.
1867—Gumpert, B. Barton, M. D., died June 23d, 1904.
1895—Hall, William D., M. D., died August 2d, 1897.
1883—Hancock, Joseph, M. D., died January 19th, 1906.
1904—Harry, F. M., M. D., died November 20th, 1905.
1888—Hawley, S. B., M. D., died March 6th, 1890.
1868—Helmuth, William Tod, M. D. (honorary), died ———
1866—Herron, James A., M. D., died November 15th, 1868.
1866—Hofmann, Herman H., M. D., died April 4th, 1891.
1886—Holcombe, John Randolph, M. D., died December 17th, 1896.
1884—Hosfeld, George, M. D., died November 9th, 1884.
1873—Houard, J. G., M. D., died April 24th, 1878.
1885—Houghton, Henry C., M. D. (honorary), died ———.
1889—Hoy, H. K., M. D., died July 5th, 1906.
1882—Ivins, Horace F., M. D., died January 1st, 1899.
1866—James, Bushrod W., died January 6th, 1903.
1866—James, David, M. D., died June 6th, 1873.

1866—Jeanes, Jacob, M. D., died December 18th, 1877.
1905—Klock, H. A., M. D., died February 1st, 1908.
1866—Koch, Augustus W., M. D., died May 4th, 1886.
1889—Lazear, Lyttleton L., M. D., died ———, 1898.
1866—Lee, J. K., M. D., died November 10th, 1887.
1869—Lee, John K., M. D., died May 31st, 1899.
1894—Lentz, Levi R., M. D., died May 27th, 1902.
1876—Lilienthal, S., M. D. (honorary), died October 3d, 1891.
1867—Lippe, Adolph, M. D., died January 23d, 1888.
1871—Lovejoy, E., M. D. (honorary), died August 15th, 1872.
1868—Malin, George W., M. D., died January 18th, 1883.
1886—Malin, John, M. D., died November 29th, 1889.
1866—Marsden, J. H., M. D., died August 27th, 1883.
1865—Martin, Henry Noah, M. D., died September 1st, 1889.
1881—May, Newton, M. D., died January 27th, 1889.
1866—McClatchey, R. J., M. D., died January 15th, 1883.
1887—Millen, J. C., M. D., died ———, 1901.
1875—Mohr, Charles, M. D., died October 31st, 1907.
1870—Moore, Thomas, M. D., died March 25th, 1882.
1867—Morgan, John Coleman, M. D., died June 27th, 1899.
1866—Neville, W. H. H., M. D., died January 22d, 1904.
1873—Nichol, Thos., M. D. (corresponding), died June 14th, 1890.
1907—O' Donnell, H. J., M. D., died September 14, 1908.
1869—Ostrander, W. M., M. D., died August 23d, 1881.
1868—Paine, H. M., M. D. (honorary), died December 5th, 1903.
1868—Payne, Wm. E., M. D. (honorary), died March 9th, 1877.
1878—Pereira, Ignacio, M. D. (corresponding), died April 18th, 1881.
1894—Peters, J. Elwood, M. D., died ———, 1904.
1868—Pfoutz, J. S., M. D., died ———.
1866—Preston, Coates, M. D., died August 9th, 1881.
1868—Pulte, J. H., M. D. (honorary), died February 24th, 1884.
1882—Pursel, J. E., M. D., died March 15th, 1885.
1872—Rankin, John Stephen, M. D., died April 21st, 1899.
1866—Raue, Charles G., M. D., died August 21st, 1896.
1867—Reading, Edward, M. D., died March 7th, 1889.
1866—Reading, John R., M. D., died February 14, 1886.
1870—Reinhold, H. E., M. D., died March 6th, 1879.
1871—Rittenhouse, S. R., M. D., died June 26th, 1895.

1895—Roberts, C. W., M. D., died March 20th, 1903.
1866—Roberts, R. Ross, M. D., died April 4th, 1875.
1887—Rodes, Joseph, M. D., died ———, 1898.
1866—Rosseau, L. M., M. D., died September 25th, 1882.
1874—Schmucker, Francis R., M. D., died ———.
1872—Scott, James L., M. D., died August 15th, 1876.
1883—Sharkey, W. P., M. D., died August ———, 1903.
1892—Shoemaker, D. W., M. D., died April 27th, 1904.
1883—Skeels, James S., M. D., died ———, 1891.
1880—Smedley, Isaac G., M. D., died December 1st, 1899.
1870—Spencer, J. H., M. D., died ———.
1872—Speth, W. F., M. D., died May 11th, 1881.
1889—Starr, Pearl, M. D., died July ———, 1900.
Stauffer, D. R., M. D., died March 16th, 1874.
1894—Steele, William G., M. D., died April 30th, 1906.
1867—Stevens, C. A., M. D., died January 17th, 1881.
1868—Talbot, I. Tisdale, M. D. (honorary), died July 2d, 1899.
1870—Taudte, F., M. D., died March 27th, 1878.
1902—Taylor, William Gardiner, M. D., died March 4th, 1904.
1871—Thomas, Amos R., M. D., died October 31st, 1895.
1891—Tindall, Harry Brooks, M. D., died January 9th, 1892.
1882—Trites, W. B., M. D., died January 19th, 1890.
1889—Visher, Carl V., M. D., died May 13th, 1906.
1867—Walker, Mahlon M., M. D., died March 31st 1896.
1870—Waters, George H., M. D., died ———, 1892.
1880—Way, J. H., M. D., died September 3d, 1887.
1881—Weaver, Chandler, M. D., died November 1st, 1906.
1866—Willard, Lewis H., M. D., died July 30th, 1906.
1866—Williams, Thomas C., M. D., died October 1st, 1899
1866—Williamson, Walter M., M. D., died December 19th, 1870.
1866—Williamson, Walter, M. D., died May 5th, 1874.
1868—Wood, James B., M. D., died April 14th, 1889.
1904—Yerkes, Frank E., M. D., died December 22d, 1904.
1897—Yetter, A. F., M. D., died May 8th, 1898.
1874—Young, J. H., M. D., died June 21st, 1894.
1880—Zerns, Wm. M., M. D., died September 21st, 1887.

MEMBERS AND VISITORS REGISTERED AT THE MEETING.

Allen, John J.
Arnold, B. G.

Baily, A. W.
Bamberger, F. E.
Barnes, F. H.
Bernstein, Ralph.
Betts, B. Frank.
Betts, Norman S.
Biddle, J. T.
Bierman, H.
Bingaman, C. F.
Blackburn, E. C.
Blake, E. M.
Bomberger, W. E. J.
Bowie, A. P.
Boyer, Francis W.
Bradford, G. M.
Bradley, T. B.
Brickley, E. W.
Brose, Geo. W.
Bruce, Wm. T.
Bulick, T. M.
Bunting, H. W.
Burnite, J. F.

Carmichael, T. H.
Champlin, H. W.
Cheyney, Howard.
Clark, Ernest L.
Clarke, Anna C.
Cooke, Mary A.
Crawford, Julia T. Hill.

Deardorff, J. W.
Dehoff, J. W.
Dewey, W. A.
Dreher, E. C.
Dreibelbis, S. L.
Dunning, Thos. S.

Edmundson, W. F.

Fisher, C. E.
Fisher, G. S.
Fleagle, M. M.
Frank, J. W.

Garner, Albert Rowland.
Garrison, J. B.
Gay, H. M.
Gerberich, D. P.
Gerberich, Guy A.
Gerberich, H. L.
Gladwin, F. E.
Goff, Ella D.
Gramm, Edward M.

Haas, Geo. H.
Haines, Oliver S.
Haman, W. A.
Harris, D. R.
Harrison, H. A.
Hartley, Arthur.
Hartman, G. W.
Hassler, W. A.
Heritage, J. B.
Hill, E. H.
Hollowell, James.
Holsberg, W. H.
Howell, F. E.

James, Jr., John Edwin
Johnson, Theo. M.

Kinney, E. Spencer.
Kistler, D. S.
Kistler, Grant M.
Kistler, J. S.
Kistler, M. S.
Kline, D. C.
Koons, F. W.
Korndoerfer, Aug., Sr.
Kreider, J. H.
Krusen, F. A.

Landis, D. M.
Lane, N. F.
Lingle, John C.
Loos, Julia C.

Maddux, D. P.
Mann, S. S.
Massey, Franklin F.
Maurer, J. M.
Maust, Geo. N.
McClelland, J. H.
McEldowney, J.
Meiley, H. S.
Mercer, Robt. P.
Merkel, Geo.
Merrell, A. F.
Metzger, I. D.
Miller, C. R.
Miller, F. T.
Moyer, S. C.
Murphy, G.
Myers, Chas. E.

Nesbit, Edwin Leighton.
Northrop, L. H.

Parker, B. F.
Perkins, R. S.
Peters, W. C.
Piper, R. L.
Platt, Chas.
Pond, E. H.
Pratt, Trimble.
Price, John.
Prizer, E. T.
Raue, C. S.
Reinhold, Hannah.
Reinhold, Lydia.
Reith, John W.
Rhodes, C. M.
Rhodes, H. H.
Richtstine, F. B.
Riegel, A. J.
Rossiter, E. B.

Sawers, F. C.
Schantz, H. F.
Schantz, Margaret H.
Schreiner, Emma T.
Seibert, Wm. A.
Seip, C. P.
Seitz, W. C.
Shallcross, I. G.
Shower, J. A.
Sierer, A. L.
Simmons, S. S.
Slough, F. J.
Snader, E. R.
Snyder, E. S.
Statler, E. C.
Stewart, Wm. Alvah.
Stitzel, J. W.
Straub, D. W.
Straub, E. L.
Strock, Henry B.
Sunanday, F. W.
Sutton, John C.
Swartz, J. Ross.

Terry, Howard, Jr.
Tomlin, R. E.
Townsend, Irving.
Tuller, John J.

Ulrich, S.

Van Lennep, W. B.
Varner, Anna D.

Ware, H. B.
Waylan, Julia G.
Weaver, G. B.
Weaver, H. S.
Weaver, W. A.
Wells, G. Harlan.
Wesner, M. A.

Yale, Arthur W.
Yeagley, J. H.
Yoder, Daniel.
Young, J. H.

PAPERS

AND

DISCUSSIONS

REPORT OF THE

SECTION OF SANITARY SCIENCE.

Municipal Sanitation, by H. F. Schantz, M. D.
Benefits of Medical Examination in Public Schools, by A. R. Garner, M. D.
Sanitary Measures in the Open Air Treatment of Pulmonary Tuberculosis. by G. W. Hartman, M. D.
The Milk Problem, by F. F. Massey, M. D.
Practicable Preventives of Venereal Diseases, by Emma T. Schreiner, M. D.
The Sanitary Care of the Typhoid Fever Patient, by Howard Terry, Jr., M. D.

MUNICIPAL SANITATION.

H. F. SCHANTZ, M. D., READING.

With the increasing population in cities, the question of municipal sanitation relatively increases in importance. Not that the observation of sanitary care is necessary only in thickly populated places, for carelessness will cause the spread of disease in the sparsely settled country as well.

The solution of many of the sanitary problems requires the technical knowledge and experience of the sanitary engineer for the selection of method and successful operation of same.

It is to be regretted that the selection of method too frequently depends on the vote of the local councilman, who rarely possesses that amount of scientific knowledge to enable him to intelligently select the best system.

The enforcing of sanitary rules is difficult, but when to that is added the difficulty of securing funds to pay for these improved methods it is greater.

Unfortunately, the element of "distribution of patronage" to favorite contractors, the payment of campaign expenses, jaunts and "joy rides" seem to be such a prominent factor in the placing of municipal contracts that the question of price, or, rather, cost and extras, of the installation of sanitay methods is almost prohibitive

in the smaller cities and towns, though they are proportionately as great a health menace as are the larger cities. To what extent the Commonwealth will be compelled to assume financial responsibility for the building of these sanitary plants or what assistance will have to be given remains to be determined.

The co-operation of the family physician with the health officer, and of the department of health with the engineer's office are necessary in securing municipal sanitary improvements.

The public is awake to the fact that the sanitary purification treatment of the water supply and the care of the waste materials so as to render them non-putrescrible are necessary in the prophylaxis against disease.

The public press and the various magazines have extensively discussed the subject and are conducting a campaign of education along these lines and the epidemics of disease are carefully watched.

The typhoid fever epidemic in Royersford and Spring City, Phœnixville, in our own State, is one of the most recent sanitary—shall I say—crimes, the responsibility for which has not been clearly established. The recent dry season, with low water supply, may be a possible cause. The subject of typhoid fever infection will not be discussed here, for Dr Terry, of Phœnixville, who has just been through this epidemic, will present a paper on "Sanitary Difficulties in the Care of Typhoid Fever Patients."

"The Care of the Tubercular" will be the subject of a paper by Dr. G. Willis Hartman, of Harrisburg, and the sanitary questions regarding the care of these cases will be presented in his paper. Suffice it to say that this subject is being thoroughly impressed on the people at this time through the International Tuberculosis Congress now in session in Washington.

The food supplies and especially the "Milk Supply" must be under sanitary restriction and this subject is to be discussed by Dr. Massey.

The sanitary questions in the schools deserve attention and Dr. Garner will consider "The Examination of School Children."

The control of "The Social Evil" must eventually devolve on the muncipality and Dr. Schreiner presents a paper on "Practicable Preventives of Venereal Disease."

The furnishing of *pure water,* the disposal of *waste* material

through house and storm sewers and sewage purification, as well as the disposal of *garbage* are exceedingly important questions to be considered by the authorities in thickly populated communities.

Pennsylvania's legislators awoke to the health needs of the people of this Commonwealth and since the creation of the Department of Health by Legislative enactment and the passage of laws forbidding the pollution of streams has forced the issue of water purification and sewage disposal, and a number of plants are completed and efficiently purifying water and sewage.

Last year at the Pittsburgh meeting of this society I described the Weand plant for sewage treatment, which was under construction at that time at Reading. This is a settling tank and sprinkling filter system, and is in operation and efficiently removing 85 per cent. of the impurities from the sewage that is being treated. The filter beds have been found of insufficient capacity to care for the 4,500,000 gallons of sewage daily and additional beds are under construction.

In the matter of sewage treatment, an interesting complication has arisen. A Mr. Crawford, of England, is claiming rights, by patent, to the septic tank method of sewage treatment and the claim must be met in court. The case is listed for trial in Saratoga, N. Y., and it will be interesting to note the opinion of the Court on the contested point, for thereon depends the installation of a number of septic tank sewage disposal plants in this State.

The removal of trade waste from the sewage, or, at least, the purification of these wastes, is necessary, for the chemical impurities in water supply are of as great importance as is the removal of filth.

An economical question to be considered is the nitrogenous content of sewage. Where the sewage can be economically treated so as to remove, or, at least, render innocuous, the bacterial content, and save the nitrogenous content for agricultural purposes, the sewage will become a source of revenue instead of an item of expense.

The purification of the water supply is handling the sanitary question from another point of attack, but if the streams were not polluted with filth filtration would be unnecessary.

Slow sand filtration seems to be the most satisfactory method in my home city, Reading, where two of the sources of city supply are

being filtered and the plants are under construction to filter the remaining supplies.

Again an economical question arises, should filtered water be used for all purposes, or should there be a supply of unfiltered water furnished through a separate system of mains for fire, street sprinkling, flushing of plumbing and general purposes, and the filtered water supplied only for kitchen and bath room uses?

Speaking of your city of Harriburg, it is gratifying to note that you have such a splendid water filtration plant, but you will have to go a step further. Your open sewers pouring the raw filth of your city into the Susquehanna river will eventually make the river a menace to health of the people down stream and you will have to abate the nuisance. Under the law pollution of rivers and streams must cease.

If, as has been aptly said, "Disease is life under changed conditions," the sanitarian must try to change the conditions which so affect life.

In addition to the supply of pure water and the disposal of garbage and sewage, the *paving* of the thoroughfares of a city and the care thereof are sanitary questions to be met. I am no "advance agent" of the Asphalt Trust, nor the "Barker" of the Brick Trust, or the advocate of "wood block," "Belgian block" macadam, "Tarvia treated" macadam, each of which have their advantages depending upon local conditions and the "persuasive experience" of the agent in landing contracts. Atmospheric conditions and grades and amount of traffic must be considered in the selection of material for paving.

One element of disease distribution which has not received the careful attention it deserves is *street dust*. Dust and dirt spread disease, but moist filth breeds disease.

Again, the "smoke nuisance," a condition more annoying in prosperous times than during a panic, is of great interest to housewives and the vendors of smoke consuming devices. Smoke is not nearly as dangerous to health as is street dirt, for it has been subjected to high temperature, but each is annoying and a menace to health and must be regulated. All respiratory diseases are aggravated by the inhalation of smoke and dust-laden air.

Anti-spitting legislation is excellent, but cares for the sidewalk only and does not prevent the expectoration of tubercular sputum

into the gutter and street, there to be dried and raised as dust by the first trolley car or automobile that passes and this dust cloud is ready for inhalation by the first passerby.

Unnecessary noises are a public health disturbing factor which is receiving merited attention. The cries and noises of the butcher, the baker, the milkman, the fish vender, and the ragman, the senselessly prolonged tooting of the horns of the automobile and motorcycle, the unnecessary ringing of bells and blowing of whistles, flat wheels of trolley cars, the playing of street pianos at all hours of day or night and even the phonograph in the moving picture show, with its monotonous grind of so-called music ranging from "rag time" to "classics," will receive attention with other nerve racking noises. "Hospital streets" are marked by cautionary signs in New York.

Pollution of streams will continue until the people are convinced that protection of self is secured by careful attention to destruction of waste. Sanitary surveys of streams show that sanitary rules are abrogated at the average summer camp, picnic ground and summer resort. In sparsely settled communities, pouring of untreated sewage into a stream used as a municipal water supply miles below may not be so dangerous for natural purification may remove impurities, but it is a dangerous experiment and an illegal act in this State.

In these days of "therapeutic nihilism," of which so much is said in dominant medical journalism, Sanitary Science and Hygiene have risen to "front rankers" in importance.

The physician's duty is to cure the sick, but we are bound in honor to prevent the development of disease where possible.

We must be interested in sanitation.

Leave the details to the sanitary engineer, but by all means support the efforts of the officers of the Department of Health of Pennsylvania to raise the standard of sanitation in the cities and towns of our State.

DISCUSSION.

Dr. Augustus Korndoerfer, Sr.: On this subject, so vitally concerning the health, we hear a great deal from the old school. I often wonder why members of our school do not claim that which

is our proper right by reason of inheritance. We have inherited from Hahnemann a great deal of that which is now being published. Even the matter of the cremation of the dead from contagious diseases has all been treated by Hahnemann. He has given us much although it was written nearly a hundred years ago. The matter of hygienic care of tuberculosis was also treated by him. All these points have been considered by members of our own school. If you read Hahnemann you will find in his rules for sufferers from contagious diseases the arrangement of hospitals, one sanitary hospital to be built for a year and then demolished by fire; the paying of a premium to nurses, making the pay to be dependent on the length of service and remaining on service throughout the epidemic; the suggestion that the bedding be burned after the patient was dismissed; the patient should go through antiseptic cleansing; that antisepsis should be secured by baking; that the clothing be destroyed, or passed through the oven. This was all recommended by Hahnemann nearly a hundred years ago, yet we come together year after year to talk it over. Unfortunately, most of our members do not know that these things were written a hundred years ago. It is a vital matter that we should recognize these things.

With regard to one or two points suggested by the paper—a suggestion of proper care with milk and the milk supply. I was very much pleased in reading an article recommending the use of paraffin bottles. These bottles are supposed to be used once and then destroyed. They are now used by some in Philadelphia, but the expense attached to their use is such that all dealers cannot use them. I remember hearing of a case where the milk bottles were used to measure the amount of urine passed during the day. The bottles were used and sent back to the dairy. In a certain laboratory one of the chemists said that it was a common thing for him to have a dozen milk bottles sent in containing urine for analysis. I asked him what he did with them and he said "A nigger buys them and then sells them to the dairymen." These are things for the profession to think about. Patients should be warned against the dangers which they may incur from a state of affairs such as I have described. It makes the whole process filthy. The milk bottles now are put on the steps where dogs and cats can interfere with them. These are things which our business people should be instructed in. This paper should afford us much food for thought.

BENEFITS OF MEDICAL EXAMINATION IN PUBLIC SCHOOLS.

ALBERT ROWLAND GARNER, M. D., NORRISTOWN.

Kirkpatrick says:

"What a child is, at any given time, is developed from what he was at the beginning plus what he has acquired by his reactions."

We know that the child at birth has the same number of nerve cells as it has in adult life. Education and mental growth are the development of different immature nerve cells. After seven or eight years the brain has attained about 90 per cent. of its adult weight, with but very slight increase in size at maturity, quite inadequate, considering the increase in mental capacity. The length of time required for perfection of function varies for different organs. Those connected with vital processes naturally mature early and with their spinal nervous centres essential to their control. The growth of the complex construction of the cortex in which the higher mental activities occur belong to childhood, and, according to Swift, the higher the animal in the evolutionary series, the greater the length of time needed to complete this development.

Rudimentary cells must develop and become capable of functional activity, and this wonderful system of inter-cellular fibres, association paths, must be organized. It is because of its long period of immaturity that the nervous system is so sensitive to its environment.

The developing organ is not able to offer the same resistance to disease as the matured organ. During childhood, the constituents of the nerve-cells are in a condition of unstable equilibrium. Therefore, it is necessary during this sensitive, susceptible, energetic, hyperactive stage of nervous development to remove all friction, jolts, shocks, strains of all the stimuli that impress the nerve terminals. It is an important fact that instincts do not appear until called out by the appropriate stimulus.

In proportion as the child perceives a stimulus with great acuteness, so will a harmful stimulus become a source of irritation.

A child's character and whole life may be absolutely changed by the presence of some abnormal irritation. Many criminals have made their start from some abnormal irritation.

Last July in the "Psychological Clinic" of the University of Pennsylvania we examined a boy of good family and history, and yet with whom they could do nothing with his stealing, lying, and truancy. But within one month after his visual error had been corrected, enlarged tonsils and adenoids had been removed, he was quite a different boy. A changed character.

Three years ago a boy was brought to me for examination. He had never been ill, had the worst record in the school for deportment, had been in the same grade two and one-half years, and had been moved around to three or four different teachers. He was circumcised and refracted. Two years later I learned that he was leading his class and that he was well behaved.

The following are a few cases of reflex neuroses borrowed from Prof. Swift:—

Case 1. (Case 3. P. 118.)

Girl; age, sixteen years. She was behind in her class and complained of headaches and of becoming sleepy while reading. About this time she exhibited an aversion to studying and to practicing the piano. This was inexplicable to her mother, as the girl had always been very studious, and only the year before had won class honors. An acute catarrhal inflammation of the eyes brought her to the oculist, who found that she had hypermetropic astigmatism. The proper correction brought complete relief and all the disturbing symptoms vanished.

Case 2. (Case 5. P. 119.)

Boy; age, eleven years. Surroundings good, but he was so dull in school that he had fallen three years behind. Examination revealed mixed astigmatism. When this was corrected he began to improve physically, and two years later he had overtaken his former class-mates.

Case 3. (Case 2. P. 120.)

Girl; age, eleven years. For a year the child had been troubled with headache, vertigo and nausea. She had little appetite, was anæmic and nervous, but especially nervous at night. A short, hacking cough, which was increased by nervous attacks to which she was subject, greatly worried her parents. Two months before consulting Dr. Coover "she became suddenly unconscious, her body was convulsed, and she foamed at the mouth. This attack lasted about ten

minutes; preceding it she became very nervous and suffered from severe headache. She had, in all, seven attacks. They usually came on in the evening after school." Full correction of her hypermetropia was followed by the disappearance of her headache and cough, and the convulsive attacks ceased.

Case 4. (Case 3. P. 121.)

Girl; age, nineteen years. From early childhood she had been afflicted with severe and continuous headache, accompanied by gastric trouble and malnutrition. Three months of monocular exercise, with correction of her error of refraction, was followed by complete recovery.

Case 5. (Case 4. P. 121.)

Girl; age, ten years. She suffered from indigestion and headache, and was in a state of nervousness bordering on melancholia and hysteria. In addition, she showed symptoms of enuresis, which usually occurred at night. This trouble had existed for two years, and a number of physicians had been consulted, but without relief. Examination of her eyes disclosed ocular defects, which were corrected, and in six months she had entirely recovered.

Case 6. (Case 5. P. 121.)

Girl; age, fifteen years. Five weeks before the physician was consulted, she had fallen in a convulsion while in school. During the attack she was unconscious and foamed at the mouth. "The aura consisted of pain in the head, dizziness, and blackness of vision, and after this she passed into a general tonic spasm, which lasted for five minutes." These attacks followed continued use of her eyes, and they occurred either in school or shortly after. She was nervous and suffered from almost constant headache. Examination of her eyes showed compound hypermetropic astigmatism. Glasses were prescribed, and so long as she wore them she had no attacks, but on one occasion, when they had been mislaid, she had four convulsive seizures. After they were found and again worn the attacks once more ceased and had not returned up to the time when the case was reported.

Case 7. (Case 2. P. 122.)

Boy; age, ten years. Surroundings good; he was very fond of out-door play, but had not developed physically as he should. His symptoms were nervous muscular twitchings, at times greatly exag-

gerated. His eyelids were in constant motion, and occasionally he complained of severe headaches. His ocular error of refraction was relieved and his muscular insufficiency treated, and he was kept under observation for eight months, during which gradual improvement was noticed. When last seen, three years after consulting the oculist, all of the choreic symptoms had disappeard.

Case 8. (Case 1. P. 123.)

Girl; age, nine years. From her fourth year the child had had epileptic convulsions. When this record was made they were occurring from three to six times a month. At eight years of age she was sent to school and the convulsions then rapidly grew worse. A year after the correction of her compound myopic astigmatism, her parents reported that the seizures ceased soon after she began to wear the glasses.

Case 9. (Case 2. P. 123.)

Girl; age, eight years. The child had manifested epileptic symptoms since she was three years of age. Examination showed compound hypermetropic astigmatism, which was corrected, and when the case was reported, five months after the glasses were prescribed, her parents said that during that time she had been free from attacks.

A FEW ADENOID CASES.

Case 1. (Case 1. P. 139.)

Girl; age, fourteen years. Mouth-breather and deaf. Six months after removal of adenoids she had grown three inches. Her deafness also disappeared, and she showed great improvement in her school work.

Case 2. (Case 2. P. 139.)

Girl; age, eleven years. Mouth-breather and considered stupid in school. With the removal of the adenoids she grew six inches in about four months, and, at the same time, made unexpected progress in school.

Case 3. (Case 7. P. 140.)

Girl; age, ten years. This child was dull in school and her mouth-breathing gave her the usual stupid look. When the adenoids were removed and she was able to breathe freely through her nose, her school standing improved at once, and her stupid appearance gave way to a vivacious frank expression.

Case 4. (Case 8. P. 141.)

Girl; age, eight years. She was listless in school and unable to understand what was explained to her or to learn her assigned lessons, but as soon as the operation was performed all this changed, and she had no further difficulty with her school work.

Malnutrition is accountable for many cases of dulness in certain districts. Children come to school—with a glass of beer, coffee or tea—the list of poor diet is entirely too large to mention at this time. Teeth have more to do with abnormal conditions than one might at first think. Other conditions of the mouth are numerous in which treatment and hygienic measures have helped.

Syphilis is found to injure very large percentage of the children in certain localities, especially the tenderloin of Philadelphia. The Italian children and other foreign children in many of our cities have their clothes sewed on in the fall and are not removed until spring.

On the other hand, frequently, it is the bright, precocious children who show choreic symptoms. Their nervousness is after all a symptom of their brightness. It is quite necessary that the symptoms should be recognizzed early, not only for the child's sake, but because of the bad influence on the other pupils.

Tic, hysteria and epilepsy are other disorders which should be recognized early and isolated. In the cases just mentioned the families, and in some instances the family physicians had considered the children normal. In most cases the physician has no way of getting at these children except through the school system.

The following is a brief report from Dr. Heilman, of Pennsylvania, of twenty cases of backward children, in the Camden public schools: Four mouth-breathers; eight have decayed teeth; nine hypertrophied tonsils. Five children have defective craniums; and one is a hemiplegic. Out of eighteen cases tested, thirteen have sub-normal vision; four have strabismus. Four cases sub-normal in hearing.

Dr. Cornell investigated the Claghorn school and gives the following data:

Percentage of normal children in a bright class 82 per cent., a dull class 62.5 per cent., and the dullest gave but 44.8 per cent. These defects in the dullest were chiefly nose and throat affections.

At the International Congress on School Hygiene in London most of the time was given to the medical and educational treatment of children, who physically, mentally, or are morally defective. "The economic waste resulting from neglect of physical and mental defects was emphasized in several of the papers. Dr. J. T. Cronin, assistant chief medical inspector, department of health, New York City, states that in a school population of 650,000 30 per cent. of the children are from one to two years behind the proper class for their age. The cost per day of education for one child is about twenty cents. If 195,000 children lose one year out of the six years of compulsory attendance, the State loses $1,666,666 every year.

"Ninety-five per cent. of these backward children," says Dr. Cronin, "were defective in eye, ear, nose, throat, or nutrition. In one school a special class of 150 backwards showed 100 per cent. defective. This class was studied collectively. Fifty-six of these children were operated upon at a private hospital and thirteen fitted with proper glasses; eighty-one were operated on in the school building. * * * The previous history of these children was very bad as to class conduct, effort and proficiency. A number of these children were sent to the country after operation. * * * A report on seventy-six of the children six months later showed that without exception all had improved in conduct, effort and school proficiency, as measured by their promotion to a higher class."

Further evidence of this economic waste was found by Dr. Cronin in his investigation of the physical condition of inmates of the truant school. Over 90 per cent. of the truants showed marked physical defects of such a character as to interfere with school work. In 70 per cent. of the classes the defect was one of eyes, nose, or throat. Many of these children would never have become truants had these defects been corrected at an early stage in school life.

In Japan, every school child is examined twice a year and careful record kept.

In many French schools, two records are kept for each child. Anthropometric data, vaccination record, list of absence on account of illness, etc., and the fiche sonitaire, containing more detailed information concerning general health, family history, condition, ears, eyes, pharynx and nose and general medical observations. Germany, Denmark, France, England, Finland and many other foreign countries are away ahead of the United States in this department.

At the present time, in this country, the ones who are endeavoring to secure medical inspection and examination are principally the teachers and superintendents.

Is not this one of the greatest benefits to mankind? It has been conservatively estimated that for every school of a thousand children, there will be forty backward children. At present these children are in school and usually in the lower grades with the healthy and normal children, several years their junior. For the proper training of the normal children the sub-normal ones should be removed, and if the unfortunate pupils are to be helped at all, they must have special teachers and special treatment.

From the economic standpoint, it would cost the State much less to treat backward children and to train them to support themselves than it does to support lunatics and criminals.

Is it not of interest to the medical man to save children from their being future criminals and lunatics? Those fathering the prevention of tuberculosis have not so worthy a cause nor a condition so curable.

DISCUSSION.

Dr. E. M Gramm: The daily examination of school children reveals many diseases among them that, in the overcrowded condition of the schools at the present time, are a menace to the little ones with whom they are forced to be in very intimate contact and also to the teachers. Trichophytosis is very frequently found and lousiness is very common, so much so that teachers speak of attacks from which they personally have suffered as nothing out of the ordinary. Chicken-pox, small-pox, scarlet fever and diphtheria present themselves on different occasions. Whooping cough is often brought to school by children who are not affected by it, but whose brothers or sisters have it. Hence nothing is of more importance to the community than frequent and thorough examinations into the health of children who are wards of the counties and municipalities so far as their education is concerned. However, the large number of schools under the care of one physician usually results in most perfunctory investigations through lack of time. On the other hand some parents fail to send their children to be examined by an outside physician for fear that such an examination will re-

sult in ascertaining positively that they should not mingle with others in the schools.

School boards and teachers should be educated to the value of knowing the status of a child who manifests symptoms of illness; and it might be well to emphasize the fact that many children who suddenly lose interest in their work or who show a decided and sudden inability to keep up to their usual standard in it will many times be found to be suffering from some corporeal ailment.

Children from families in which tuberculosis exists should come in for a great share of attention. They should be taught the dangers of carrying the tubercle bacilli to the children with whom they play and whose books, pencils and even food they handle and share in common.

The causes of backwardness in children is too big a subject to go into at the present time, but there is no doubt of the fact that many a child is given credit for being "bad" by reason of some physical or mental defect and a large proportion of them can be helped if their physical difficulties are looked after.

Dr. Julia C. Loos: Very little emphasis has been given to the habits of the children in their school work. In this city we give lessons that require study during the noon hour. We see children studying all except two or three minutes of recess. It has been my custom to inquire into the habits of these children and to impress on them the necessity for taking time to eat. This subject must appeal to those who do much teaching. Sufficient time for eating should be allowed. I have noticed many of these children who have eaten and then gone immediately to study.

Dr. T. H. Carmichael: There is one point that appeals to me and that is the formation of proper brain structure, as the tendency of our youth is towards the neurotic side. The development of proper brain structure is the one thing in which we can direct the young of our country. This civilization cannot be done as long as present methods prevail. It is hard for teachers to specialize where forty or fifty children are given to one teacher. We should have more teachers so that we will not develop into a race of neurasthenics.

Dr. Augustus Korndoerfer, Sr.: The subject is a very important one, and I want to emphasize that which I believe to be import-

ant. We, as a medical body, ought to be, as already asserted, taking more interest in hygiene and sanitation than in the past and make a noble effort in the line of work that has been suggested, such as the examination of the physical condition of our children. Parents should have more freedom in asking the advice of the family attendant on subjects that they are not fully able to decide from their own standpoint. The trouble in the public school is that we have incompetent, uneducated teachers in control of the children; young girls, eighteen, nineteen and twenty, without any education except that enabling them to conduct a written examination on the lessons given the children without being able to understand the hygienic requirements, without any obligation resting upon them to teach anything other than the prescribed routine of studies, without feeling that they are in a position where they can develop the higher instincts of the human family by judicious thoughts and advice. The curriculum in our public schools needs change. There is so much taught that is not of practical value. There are practical things that are neglected. In a trip abroad I noticed all the young women when they got off a street car got off in the direction in which the car was going. I asked a man, who was standing there, why that was, telling him that in my own country they usually stepped off backwards, and he told me that was easily explained, as the children are taught in the infant schools just how to take care of themselves, how to do just the best for themselves. We ought to have our youth instructed in how to take care of themselves.

Dr. E. L. Nesbit: To one preparing to practice the specialty of family physician this paper is most interesting. Nowadays, we hear a great deal of preventive and curative medicine, but up to the present time little attention has been given to what may be called constructive medicine. This applies particularly to the individual in contrast to the other types which apply to groups, as in municipal or State medicine. The problem for each family physician must be to raise the physical potential of each individual under his care. Municipal and State supervision do not affect the individual until, at least, six years have passed, six formative years. It is the duty of the family physician to see to it that these years tell for good rather than evil. Many a child not passing under careful systematic examination from time to time, at definite and regular intervals, is

permitted to pass into adult life with fundamental weaknesses which by default become permanent physical defects. Men are coming to see that from an economic point of view it is desirable to have their teeth attended to at regular and definite intervals before accidents occur. It has occurred to me that the day for the family physician is dawning rather than passing. If men can be trained to stand in the relation of medical advisor and instructor to their patients, to conduct definite periodical official examinations, and to outline a physical course or curriculum for each in accordance with individual requirements so that the individual may be enabled to develop a greater physical potential, we will then be practitioners of constructive medicine.

SANITARY MEASURES IN THE OPEN AIR TREATMENT OF PULMONARY TUBERCULOSIS.

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Pulmonary tuberculosis is so fully and freely discussed nowadays that, on first thought, there seems to be little to add to the volumes already written on the subject. However, at this time, when all classes of individuals are studying how to prevent and cure the disease, and when the national government and the various State governments, as well as those who are in authority in the counties, cities and towns everywhere, guided and advised by the members of the medical profession, are striving to wipe the disease out of existence, it is a most opportune time to present this subject for consideration, since it is so thoroughly in sympathy with the spirit of the age.

In the City of Washington, D. C., gathered from all parts of the globe, from twenty different nations, the foremost peoples of the earth, the makers of history in the world wide campaign against tuberculosis, are now in session. There, in the transaction of the International Congress for the Study of Tuberculosis, the great fight will be vigorously pushed forward. We will all anticipate with interest the latest word from those men who shall participate. They are the men whose eminence in the profession entitles them to speak, and when they do speak, what they say, will come to us with authority. They will tell us the best, the surest and the safest methods of

preventing and curing tuberculosis. We will then use and approve their methods, and will finally disseminate the good in all of them so that what has been most recently learned may contribute to the restoration to health and comfort and usefulnes of such of our clientele as suffer from tuberculosis and likewise protect those who are in danger of contracting it.

I regret that I am not one of the eminent authorities, because my experience has been somewhat limited, and for this reason it is necessary for me to bring into this paper illustrations that will appear more or less personal. I offer this apology now, for if the statements I am about to make are not made definite and specific it seems to me that they will lose much of their value.

Sanitary measures (those things which are done to assist the organism in regaining its normal status—health) are no less important in the open air treatment of tuberculosis than in those other methods of treatment that we are forced sometimes to use, but which are from the beginning less likely to succeed well. To *be* well one must *live* well, and the best way for the tuberculous patient to live is to live in the open air. If the patient is to recover let him live—rest if you please—where there is pure air, fresh air, dry air, and let him have good nutritious food, then nature will do the rest. Under such conditions he will regain his former sense of well being and his buoyancy of spirit. His color or complexion will be improved; he will develop a better appetite and gain in weight; he will lose his cough and gain in strength. His health will come back slowly or rapidly, partially or completely, however, just in proportion to the stage of advancement of the disease when scientific open air treatment is begun. Need we stop when we place our patient in the *best atmosphere* we can find and supply them with *proper food* and put them at rest? Furthermore, where is the best and purest air to be found? Is the air of one locality just the same in chemical composition as that of every other? Is the air just *air*, other things being equal.

These questions, and those other ones, as to how to provide hygienic conditions and sanitary surroundings, come up for answer every time we discover a tuberculous individual. What must we do more than to put him into fresh air? We want to answer these questions conscientiously when they arise.

A few years ago a physician who did not advise his "case" to go

to the high altitude of Colorado or the dry atmosphere of Arizona or the salubrious climate of California or some other far distant point or "change of climate" was hardly considered orthodox. It did not matter what the patient's financial ability to go was, nor how impossible it was for him to leave home, he got the advice anyhow. Some patients were benefited by the plan, others were injured by it, and more still were just left to their fate. Later, "cases" were treated nearer home, and the percentage of cures was greater than when they were sent into the far West. Such good results seemed to prove that air is just air after all. Then the other extreme came to be practiced, namely, to treat all the "cases" at home. I have no doubt but that this last plan of treatment has been a boon to many thousands of incurables, whose lives have been prolonged by keeping them at home and out of doors, and to whom a measurable degree of comfort is thus afforded while life lasts.

But to use it as a routine practice seems just as pernicious as the first plan, and those, if any, who follow it are assisting in sacrificing to the enemy many promising lives that should be saved. One such sacrifice comes to my mind most vividly. A young man of brilliant mind and noble character contracted the disease while taking a medical course. He got along fairly well for a time, then his health began to decline rapidly. He was taught in his course (and he believed it) that "cures" are just as readily effected at home as on the mountain. He, therefore, steadfastly refused to go to a sanitarium, and declined all offers of financial help made by members of his family, in order to enable him to go there. He claimed, and many others do, that fresh, pure air is the only matter for consideration. But they ignore such important features of the open air treatment as sunshine, dryness, temperature, altitude, atmospheric pressure and rapidity of air currents. He had the best of home care and most devoted nursing, but he died just one year after graduation.

I believe that the selection of ideal climatic conditions for each tuberculous individual is impossible, but by carefully studying the case in hand, and by knowledge of the difference in climate of the several localities, a good selection can be made. After the choice of the place is made, the arrangements to keep the patient out of doors as many hours of the twenty-four as at all possible for him. If he is left to his own inclination he will waste many hours in in-door visiting, which will make necessary additional months of treatment.

He wants to be made physically comfortable and have pleasant surroundings and an agreeable outlook.

There are many good private sanitaria available at the present time where patients who can afford to pay from $15.00 to $25.00 per week for treatment will find everything prepared in advance that would contribute to their comfort and pleasure. In State sanitaria also the patients find excellent arrangements that are intended to make their sojourn there healthful or health-giving and agreeable. Our own State stands in the front rank in caring for her afflicted citizens. Her advancement in fighting tuberculosis scientifically has been due to the untiring energy and the constancy of purpose of Dr. J. T. Rothrock, who did pioneer work in creating a sentiment in favor of the out-door life. He organized the South Mountain Camp Sanitarium, on land belonging to the State—a portion of its Mount Alto reservation—and carried the work forward successfully until, by legislative enactment, the burden of carrying on the work fell upon Dr. Dixon, our very efficient commissioner of health. He has put so much enthusiasm and hard labor into this section of his department that he has accomplished wonders in two years. Under his administration the camp has been greatly enlarged and improved in every way. He has also selected competent men to assist him in this work, in every county of the State, so that practically every citizen who has tuberculosis can, if he desires to do so, have scientific treatment at the expense of the State on a mountain top, at an elevation of 1,650 feet above sea level.

There are a great many patients, however, who cannot or will not go to any kind of an institution. It is for the benefit of these that I want to outline and illustrate a plan that has succeeded well for me. A patient wanted, for various reasons, to remain as near home as possible. Her husband explored the territory contiguous to the city thoroughly, in looking for a location. His search resulted in the procuring of a tract of land having an elevation of from 700 to 900 feet above the sea level. It had on it a small cabin, situated at about 700 feet of altitude on the southern slope of a steep hillside. The cabin faced the south. These desirable conditions were taken advantage of in preparing to renovate and improve the place. Suitable plans were prepared by Mr. M. I. Kast, architect, of this city. The additions made are a ten foot porch on the front, and an eight foot one on the western end, also a porch and pantry on the rear. There was

added to the second floor a balcony ten feet wide. A portion of this making a room 10x16 feet was closed in with weather boarding, except four windows, to provide an indoor sleeping room. The remainder of the balcony, 10x15 feet, was made into an out-door or canopy sleeping room. This balcony is used open except when it rains, when canvas drop curtains are used. These can be used to assure privacy but are scarcely needed for that purpose on account of the seclusion of the entire building. The only furniture used in this room is a bed, chair and a washable rug. The patient sleeps on this balcony from early spring time until very cold weather comes, except possibly during a severe thunder storm, when, if she is timid, the other room might seem more secure. The balcony room was done in surfaced yellow pine. The studding and rafters, which are surfaced, also are uncovered. The windows—single ones on the east and north and triple ones on the west and south—admit plenty of fresh air and sunshine. Sunshine is available in the room almost the entire day. The large windows open on weights and the side windows on hinges. They are all open on clear days, but in stormy weather the ones to windward are closed, or at least partly closed. This room is always cheerful and bright, and because of its arrangements for a maximum of fresh air and sunshine, those two great disinfectants are ever present.

The furnishings of this closed-in room consist of a bed, a wash-stand and a small glass-top table (all made of iron, enameled), several easy chairs, a washable rug and a corner closet. Simplicity of arrangement to facilitate sanitation and cleanliness is always desirable. The second story elevation of these rooms brings to the patient a feeling of security that prevents the nervousness and fear that comes to many patients, especially females, when they are required to occupy a place alone on the ground floor. Both of these rooms communicate with a room in the main part of the house, which is comfortably heated in cold weather. Here the patient may, with comfort, make the necessary changes of clothing.

I want to refer to the furnishings of the main porch. They consist of a bed-hammock, several rocking chairs, a steamer chair and drop screens. These as a means of contributing to the patient's physical comfort and intended to induce her to remain out of doors whenever she is "down stairs." The screens are made of strips of wood and are intended to shut out an excessive amount of light and

heat in the middle of the day. They do this nicely but admit the air. Canvas ones are almost air tight, and large awnings are very expensive.

The bed-hammock was patterned after the bed-hammock of commerce, but was constructed to be more durable and less expensive. Every patient enjoys the use of a hammock, but the ordinary one is so constructed that the patient who occupies it lies with the organs of the chest and of the abdomen somewhat crowded or contracted. This was overcome for the case described by using an ordinary bed spring, 3x6 feet, made on angle iron. The manufacturer was instructed to put a large iron link into the end of each side piece. A chain dropped from the ceiling in the shape of an inverted "Y" was fastened to these links. The use of four big chains, leading from the four corners of the bed to the ceiling and attached there, would be just as satisfactory. A mattress, made in three sections, completes the bed, which is just as comfortable as any stationary bed. The section mattress is moved indoors more easily than one made in one piece. These conveniences for living the out-door life have been thus far very satisfactory for this case.

For those "cases" who must be treated at home we can arrange an aerarium, which provides for the partial outward extension of a cot bed from an open window, the head and shoulders of the patient thus being in the open air though protected by an awning outside of the window, or the window-tent, devised by Dr. Knopf, of New York, which is "intended to rest upon a single bed and to inclose the upper portion of the patient's body, its height, length and degree of curvature being necessarily dependent upon the dimensions of the window." In addition to these devices we can consider the inexpensive balcony, balcony room, or sleeping porch. No matter what the patient's station in life may be, his physician must insist upon getting for him the best open, pure air treatment that is possible to secure for the case in hand. No matter what the patient's moral character is, the physician should be kind to him. He needs encouragement in fighting the disease. He must be given the smile of assurance and the promise of a personal interest. He deserves these things at the hands of the physician who has his entire and undivided confidence. The patient will be certain to stand by his physician and follow instructions if he has the doctor's full moral support.

There are some principles of sanitation that he must know and practice if he would do his best in self-help, and if he would avoid infecting others. He should study hygiene and apply the principles learned to his own life, in order to care for his own body properly. He must be taught to make the exhalations and the excretions from that body non-poisonous to others. He should know then how the germs escape from the body and how they usually invade their new victim. It seems to me that nearly everyone can understand the rudimentary principles of prevention, and if the infected person is made to understand that he suffers because someone else was criminally negligent, he will willingly do his best to avoid being guilty of the same negligence. Of first importance is the collection in some suitable receptacle of every bit of excretion from his lungs and respiratory passages, and the thorough destruction of it. Let him take with him constantly a sputum cup or box and small pieces of gauze. Tell him to place the gauze over his mouth whenever he coughs or sneezes in order to prevent the escape of a spray or drop of saliva because there may be germs in these. If the coughing makes the expectoration of mucus necessary, it is to be collected in the cup and never deposited upon the ground no matter how far removed from a habitation the patient may be at the time. There are many varieties of cups and boxes made for the purpose, but usually I recommend the pocket-book-like cuspidor, made by Seabury & Johnson, because it is light and convenient and sanitary, and it is not very conspicuous when used or carried by patients of either sex. Both the cuspidor and its contents are satisfactorily and easily destroyed by burning. They are not very expensive. For bedside use a covered flask or a paper cup in a metal holder are desirable. These can be operated or opened with one hand, and they are sanitary and easily sterilized.

The patient's clothing and bedding are to be fumigated frequently to keep them free of germs. They can be placed in a room and fumigated with formalin. Formalin may be used in several ways. It can be had in proprietary combination, and the package simply lighted, or in the liquid form and used in the fumigator of the shops, or by adding to it potassium permanganate (6½ oz. of permanganate to a pnt of formalin for 1,000 cu. ft. of space).

If the clothing, underwear and sheets are to be sent to the laundry for washing they can be saturated with a solution of the

chlorides or chloride of lime as an additional sanitary measure. Sunlight and fresh air are to be made to permeate the room and the bed clothing. If there is no other way to accomplish this the bed clothes should be adjusted upon a clothes line on every pleasant day. In no better way than this can the results of night time sweatings and half conscious coughings be overcome. The plan to be adopted for destroying germs in the fæces and urine will depend somewhat possibly on the location. In city practice the usual methods of using a suitable vessel to contain the excretions and of putting chloride of lime or Platt's chloride or bichloride of mercury in contact with them for at least half an hour before they are thrown into the sewer will be very satisfactory. The management of cases treated in the country is more difficult. The ideal method is in the use of an incinerator. In lieu of this, and it is not often available, the best method is to prepare a water-tight box or tub and place it upon and attach it to a sled. The excretions are to be placed in the box (this is, of course, adjusted under the ordinary out-of-door closet) and mixed with a supply of air-slaked lime and dry sand. Once a week a horse can be hitched to this sledge and be made to draw the box to some out-of-the-way place where the contents are emptied and completely covered with lime. After the refuse has been made inert it can be used for fertilizer, but care must be observed in selecting a place to store it temporarily so that it shall be in no manner possible to contaminate the domestic water supply with it. When cases are treated in the home all the preventive measures must receive extraordinary consideration.

Several days ago I spoke to a man who is taking the cure at home and he told me that he fears that he has infected his wife, thereby creating double trouble. He is an intelligent person, and is following out general sanitary measures, but lapsed in his prophylaxis some time or other. If there are children in the home their health must be safeguarded because they may, If ruthlessly exposed, develop any disease from lymphadenitis to meningeal tuberculosis, or from tuberculosis of the joints to Pott's disease of the spine.

Realizing fully then the importance of using *proper* sanitary measures for the prevention of tuberculosis, I want to say that when such precautions are taken the tuberculous patient need not be exiled from home and friends. I would let those who bear the closest bonds of consanguinity with the tuberculous individual, as husband

or wife, continue to exchange the ordinary signs of love; even kissing, which were customary before the disease entered the home. Because to him or her, as the case may be, these marks of affection often represent the only spots of green in the desert termed tuberculosis, without which there is the feeling of being cast out from society.

In this frame of mind no one can wage a winning fight. Therefore, we must help these unfortunates in every conceivable way to get well and show the more fortunate ones how to stay well. We must keep the debilitated ones away from pathogenic causes and help the strong to obliterate such causes. The tuberculous individual must rest and live a hygienic life, and the healthy one must live just as hygienic and work for both.

THE MILK PROBLEM.

FRANKLIN F. MASSEY, M. D., WOMELSDORF.

Time does not permit of too lengthy a discussion of this subject, so the writer has just mentioned a few of the more salient facts.

Before the consideration of the topic proper let us speak of the physiology and anatomy, in a general way, of the cow and its product, milk.

Previous to parturition preparation for the secretion of milk is made in the mammary glands, and shortly before parturition a thin, serous, milky fluid (not milk) can often be expressed from the teat. Three or four days after parturition this secretion is altogether different from the supply of the first or second day, the supply at first being colostrum and afterwards milk.

Colostrum is viscid, dirty white or yellowish, with a sweet, unpleasant taste. The specific gravity is 1063. It is rich in solids, varying in individuals and breeds. The globules are present only in comparatively small numbers. There are present colostrum corpuscles and leucocytes, the latter endowed with movement. Its composition is as follows:

Water	75.8 per cent.
Albumen and Casein	15.0 "

Butter	2.6 per cent.
Milk Sugar	3.6 "
Salts	3.0 "

Milk is due to fatty degeneration of the epithelial cells of the gland follicles, in which they are greatly multiplied and developed during lactation. The cells rupture and nothing remains except the fat globules of the milk.

In colostrum the epithelial cells have not undergone this change. Their wall is intact and they still contain their oil granules. This is one reason why the fluid expressed from the mammæ during the first few days after parturition should not be used by the dairyman.

Toward the fifth or sixth day after parturition the colostrum disappears and we have milk. This is opaque, pure white or slightly yellowish, with a specific gravity of 1032, and consists of three essential parts, water, butter and casein, with some albumen, sugar and mineral matters. The three essential constituents can easily be separated, the cream (containing butter fat) by allowing to stand at rest for some time, and (2) by pressure separate this into a solid mass (containing casein), and (3) what is left contains the water. Cow's milk is of alkaline reaction. Besides these three milk also contains albumen, sugar, salts and gases, such as carbon dioxid, oxygen and nitrogen in solution. Milk is especially rich in inorganic salts during the first third of the period of lactation. The flow of milk is increased after the first week of calving, decreasing in a month or so, and about the tenth month disappears and the cow becomes "dry." The later in the period of lactation the better the quality of the milk.

The mammæ or udders may be said to be appendices to the external organs of generation. Their development is at its height. Each gland has its individual teat, so that in reality there are four glands and four teats. The secretion of milk can be excited and maintained by a regular "milking," the only suspension occurring before the birth of the other calf. The blood supply to the udder is large and plentiful.

Enough for the general physiology and anatomy of the milk producing apparatus of the cow. Outside of its milk producing power the cow has not much value to us as physicians, although greatly needed by the farmer as producer of fertilizer by means of its manure.

Millions and millions of gallons of milk are annually consumed by mankind in all walks of life, and comparatiely very few persons question its composition. You may say, "What good rich milk!" when it is artificially thickened and colored. As long as it looks good and tastes sweet no questions are asked. But, gentlemen, our milk supply needs more careful supervision than that of our water. It is not so difficult to detect impure water, but it requires more knowledge and skill to detect improper milk. Milk, being an animal product, is an agent capable of carrying the germs of many diseases. The milk itself may be apparently good, but coming from a diseased animal, therefore, often swarming with deadly germs. The animal may be healthy but the fingers or hands of the milker may be dirty or diseased. The cow and milker may both be all right, but the handling, as in the cans, transportation, etc., may be improper.

Milk contains micro-organisms *which find their way into it shortly after it is collected;* these micro-organisms (bacterium lacticum) convert the milk sugar into lactic acid, which in its turn coagulates the casein. *The microbes do not exist in milk freshly passed from the mammary gland;* but, as stated before, find their way into the fluid and rapidly multiply.

The careful dairyman regulates his ventilation and observes cleanliness.

Unskimmed milk should yield from fifteen (15) to twenty-two (22) per cent. cream. Its specific gravity being from 1028 to 1034. Skimmed milk is heavier—its specific gravity being from 1030 to 1040.

Let me quote George Martin Krober: "In view of the dietetic importance of milk for all classes, but especially for infants, invalids and the sick and convalescents, it is perfectly natural that much study should have been given this food stuff, and that of late years the sanitarian and bacteriologist should have found it a profitable field for research. Indeed the production of pure milk might be considered one of the most important problems which confront the sanitarian. Few countries until recently deemed it necessary to do more than prevent the adulteration of the milk, and some of the legislatures appear to think that as long as the milk has not been skimmed or watered and contains the standard of total solids and fats we need not worry about the germs we eat or drink. This may be a pleasing reflection to persons who do not know that such

hydra-headed diseases as scarlet fever, diphtheria and cholera infantum have been disseminated in the milk supply, that typhoid fever epidemics have been thus caused, and that milk may be the vehicle of the germs of tuberculosis and other infectious diseases and morbific agents."

This paper has been a brief and perhaps disconnected consideration of milk, but as time does not permit of a longer elaboration of the subject let me give a few more statements and make a plea.

We are so accustomed to finding sedimentary matter in milk that we give it little or no attention, while in reality this sediment is really *dangerous*. It consists of epithelial debris, hairs of cow, excrementitious matter, vegetable fibres, organic and inorganic dust particles, bacteria, spore, etc., fully ninety (90) per cent. of the germs being fæcal bacilli.

Every effort should be made to prevent the collection of such material in the milk. This can in a great measure be prevented by not feeding cows upon distillery or other waste, by washing the udders and flanks of the animal and the hands of the milker before each milking, observing strict cleanliness with the milk cans and the wagons and selling only from enclosed wagons. Great care should be taken in the handling of milk bottles. Milk offered for sale should never be warmer than fifty degrees Fahrenheit. This is to prevent the multiplication of germs. All milk wagons should be equipped with some means of refrigeration during the months of May, June, July, August and September. No milk should be offered for sale obtained from a cow that has calved within five (5) days, or which will calve in twenty-one (21) days.

Other points to be considered are:

Proper chilling of milk.

Proper removal of manure.

Proper washing of cans, etc.

Proper conveyance in cars.

Proper white-washing of barns.

It is your duty and my duty, brother physicians, to see that ordinances are passed covering all of the essentials mentioned in this paper in every borough and city in the State, and, where such ordinances are passed or do already exist, be sure that they are properly enforced.

PRACTICAL PREVENTIVES OF VENEREAL DISEASES.

EMMA T. SCHREINER, M. D., PHILADELPHIA.

There are many social and economic questions involved in the subject of which I have given you the title. Many volumes are being written. Many questions waiting to be voiced.

There are several things which we, as physicians, might do and which we do *not* do, that would help very much. I think young people do not know enough of the consequences of early indiscretions.

Young men are not wholly selfish and, though women usually glory in self-sacrifice, few would willfully immolate their children on the altar of the awful Moloch of inherited disease.

If young men knew that one indiscretion was liable to make them forever unfit for paternity, a menace always to those nearest and dearest, would not some avoid the evil?

Physicians and surgeons, eye specialists, ear, nose and throat, nerve specialists—all of us, in fact, profit pecuniarily by young men's indiscretions, but what of the wives and children! What is to be done?

We do, conscientiously, our best to heal their diseases, but *do* we do our best to prevent them?

The medical profession fosters—yes, fosters—venereal diseases—by the secrecy almost universally observed, with regard to their presence.

Why should any more secrecy be observed with reference to these diseases than any others?

You may say "Publicity is impossible." "Society would be shaken to its very foundations." Better shake it off its foundations, if those foundations are *rotten!!*

One rotten foundation plank is the different moral standard for men and women. Many of the laity really believe that venery is a masculine necessity. If physicians would instruct the public that the highest health, the strongest development, the brightest intellect, is fostered by purity of life in both men and women, it would lessen the income of many of us. Yes, in one way it would, but there are many sources of income and the vision of happy homes with strong, beautiful, healthful mothers and children is one. Lately, at a large out-of-door festival gathering of children, I looked over the

seats and within my range of vision only one child seemed to have nothing the matter with it. Eyes, teeth, skin, hair, nails, and abnormal contours everywhere showed unmistakable signs of tainted inheritance. Not many appeared tuberculous. The public is having much instruction as to the prevention and care of tuberculosis, but comparatively nothing about the far more dangerous specific diseases except as they are frightened by quack advertisements and information which is false and does only harm. If one physician takes a stand alone against the prevailing methods he may not receive much attention. The public may say he is a crank, carried away with one idea—but if a great medical association would resolve to instruct the public, to do away with the special secrecy maintained about these diseases, to eliminate sources of contagion as carefully as other kinds of contagion are eliminated, might not *much* be done? The talked of health certificate before a marriage license is issued seems utterly impracticable and useless. There may be deadly dangers which no examination reveals, this plus the humiliation of such a procedure should rule it out. Safeguarding the public by official inspection of public women also seems useless, as there is no proposition to inspect their patrons and the poor women may serve as vehicles of contagion, and without actually being diseased, may pass the vile infection to another. Besides this no compromise with vice is worthy of our countenance.

Physicians should lead public sentiment. None can do it more readily, not even the highest officials or ministers of religion. *You* are the men called to this work—and think not that you will escape in safety if you neglect this duty.

"They enslave their children's children, who make compromise with sin." Can we not—here—as a Society, resolve to observe no special secrecy with regard to these diseases, but, on the contrary, to instruct those nearest the patient fully as to the character of the disease, and the best methods for its elimination? Can we not, *as a Society,* publish a pamphlet for general distribution, treating of the dangers of these diseases and the best methods of avoidance and cure?

You men who vote and legislate, can you not, in the home, or where one party is comparatively innocent—make the willful transmission of disease a crime, with a legal punishment? Such a law

would be educative, even though legal proceedings were seldom instituted.

Let in the light.

Avoid secrecy.

Educate ——.

Establish the same moral standard for men and women and we will have done our share toward the prevention of venereal diseases.

DISCUSSION.

Dr. B. F. Betts: I suppose most of you, like myself, when you read the title of this paper, wondered what ground the author would take in order to prevent venereal diseases. In thinking over the subject I was at a loss to answer the question, but the author has answered it satisfactorily. In the Divine order of human life certain laws have been given which seem to hedge around and prevent the human family from lapsing into savagery. This law, which inflicts upon those who break the social rules, which are right and proper, has, as its penalty, the danger of venereal disease, which we know at the present time not only affects the individual at the time of its inception, but is very apt to affect him the rest of his life and transmit it to future generations. Therefore, this law is a wise one and we should make a point to explain it to those who are willing to incur risk. It should be our duty as physicians to portray the enormity of the danger incurred in venereal disease. This danger we well know is not shared only by the young man, but is most particularly apt to affect his wife. Latent gonorrhœa is the cause of a great many cases of salpingitis, which require surgical operation. It not ony temporariy affects men, but renders them sterile. The author's position seems well taken. First of all, instead of excusing, we ought to treat it in the gravest manner possible, impressing upon patients that they not ony ruin their own lives, but also those of their wives, as well. The keynote of the whole matter is that the wilful transmission of venereal disease is a crime. It is just as much a crime as for one person to go and maim another wilfully, because it amounts to the same thing. The wilful transmision of venereal disease is a grave crime, and as a crime it should be punished and punished severely. If a man approaches his wife when he knows that there is danger of infecting her he commits a crime not only

to society, but against his wife and family. We, as a Society, ought to take the stand that such crimes should be punished as other crimes are.

Dr. D. P. Maddux: This subject has been brought before us in its practical aspects. I agree to the further instruction of the patients and to the danger of infection. The question that often comes to us in cases of this kind is the period of time that should elapse after the visible external symptoms have disappeared, when the patient is fully cured. This cannot be too fully emphasized. There is not sufficient emphasis put upon the duration of time they should be under treatment and the length of time that they should be a menace to society. Every physician should try to render the patient free of this disease before the patient leaves his care.

Dr. A. P. Bowie: The secrecy with which a doctor treats cases of this kind should be done away with. We are required to report all other infectious cases. I think that a law to report all cases of venereal disease should be passed. Secrecy concerning the disease is what helps to make it spread. Its spread can only be prevented when a law is passed which compels us to report these cases just as we do small-pox and other infectious cases.

Dr. W. H. Holsberg: Most of the cases of venereal disease that I have had under my care have been contracted while under the influence of liquor.

Dr. Julia C. Loos: One important point that should not be neglected—all members of this Society should do all that is in their power to report these cases. The evidence is very strong that the young men that have been infected by venereal disease have been blindfolded. There is no reason why the homœopaths should be blinded. In Hahnemann's writings there is abundant evidence of the suspicion of this disease. The doctors use some local treatment to suppress the primary symptoms to throw the miasm further and further in. You will find no one more surprised than these people when they are told that they are carrying this disease.

Dr. R. E. Tomlin: The paper just read by Dr. Schreiner is, indeed, a timely one. The moral courage displayed by the doctor can best be estimated by the fact that there has not been a male physician who had "the nerve" to bring before a meeting like this one a paper of such a secret and delicate nature, yet one of such paramount

importance. It has taken a modest woman to tackle and wrestle with a subject of profound and vital interest to profession and laity alike. I am in full accord with the sentiments expressed by those who have preceded me.

Why a subject of such gravity as the one under discussion should have been side-stepped, or committed to oblivion, by our profession and the law-makers alike can better be imagined than expressed. Why men and women infected with such contagious diseases, dangerous to themselves and every other innocent person coming in contact with them in any way whatever, are allowed such freedom is explainable only by one hypothesis. It is little short of criminal in us not to utter a protest, or word of warning of some kind, that shall properly notify possible innocent persons, or to catalogue these loathesome and transmissible diseases. We cannot honorably set aside this question any longer, affecting, as it does, the great questions of heredity, morals, etc., etc., since these belong naturally in the domain of medicine. When I observed the title of Dr. Schreiner's paper on the programme, I wondered how she would approach it, since it is always classed as an avoided subject, knowing well that those who did deal with it intelligently were of sublime faith, and truly heroic nature.

In conclusion, I want to thank the doctor for her noble, womanly effort on behalf of our race.

Dr. Emma T. Schreiner: I had hoped that some one would say something about the teaching of the children.

THE SANITARY CARE OF THE TYPHOID FEVER PATIENT.

HOWARD TERRY, JR., M. D., PHŒNIXVILLE.

Our duties as physicians must always be dual in scope, not only to treat, and cure where possible, conditions and diseases we are called upon to see, but also to prevent the spread of contagion or infection to others, and while not so important from a financial standpoint should, at least, receive its proper share of attention; for we cannot properly and faithfully fulfill the trust imposed in us unless we exert all our influence and authority toward this, rapidly advancing,

branch of our science, preventive medicine. It is, therefore, with great pleasure that I call your attention to *The Sanitary Questions in the Care of the Typhoid Fever Patient:*

The newspapers write about our contaminated water supply, milk, oysters, etc., and with good reason, for they are often most wonderfully and awfully contaminated; but how much do we read about the *real* and *vital* source of this contamination, the patient? I answer you, practically nothing.

When we are called in to see someone suffering with typhoid fever we naturally trace its inception back to some former typhoid patient; consequently the prevention of the spread of typhoid fever rests principally, if not wholly, with the care of the bacilli, as found in the excreta (not only fæces, but urine and even sputum and vomitus) of our typhoid patient. Our first step must then be—*early and accurate diagnosis,* or in lieu of that, the treatment of every doubtful case of fever, as typhoid, from a sanitary, as well as a therapeutic standpoint.

In our college days, if there are two incidents which will never be forgotten, they are, when Dr. Van Lennep came in and said, "Gentlemen, every case of pain in the belly you see punch McBurney's point." The other was when Dr. Goodno told us in his own peculiar way to "treat every doubtful case of fever as typhoid until you find out otherwise."

When our patient's family come to us and ask us what is the matter with John or Mary we say it looks very much like typhoid fever, but I cannot be sure for a day or two; how many of us, at this time, go into detail regarding the precautions to be taken in disinfecting the fæces and urine? I venture not five per cent. of us. More especially is this of vital importance in our small towns and country districts, for those of us there have not fresh cultures always on hand and neither have we easy access to laboratories where our Widal or Conradi tests can be made, consequently we must wait for our clinical diagnosis which may take two to three days, or, in some cases, as many weeks, and others are not recognized at all as typhoid; and all this time we are spreading bacilli by the million. To illustrate this last class: When New York passed a law in 1904 forbidding placing of sewage, dead bodies, or any chemicals (except systems already established) in waters of the State the reported

cases of malaria in Albany and Schenectady materially decreased. Our Board of Health should assist us in this by establishing laboratories where we could have our blood examinations made, making our diagnosis positive as far as possible. To be of real service, however, they would have to be more alive than they are in our section, Chester county, for if we get any satisfaction inside of about three months we are sure someone is a candidate for nervous prostration from overwork.

Last fall we had an epidemic of 60-70 cases, which seemed to start from two foci entirely separate and distinct as to location, one in the poorer portion and the other in the better residence section, some of us being of the opinion that local drainage was the primary cause. We called in Dr. Scattergood, our Chester County Health Physician, who came over from West Chester, rode around the town with some of our local board as guides, and in about *ten weeks* directed us to see that the town underwent a general cleaning (we have surface drainage), making it as near sanitary as possible, with no word regarding probable cause or what precaution to take to prevent a repetition of the epidemic.

Our diagnosis made and confirmed by laboratory findings, the next step is our *"Special sanitary instructions to attendants or nurses regarding proper disinfection of excreta* (fæces, urine, vomitus and sputum) and care of patient generally. I cannot do better than to read you verbatim the circular which the Wilmington, Del., Board of Health sent out out to their physicians for distribution:

"Typhoid fever is caused by a germ which finds its way into the food or, more frequently, the drinking water. The germ causing typhoid fever invariably derived from the stools and urine of persons suffering from the disease. The disease may also be communicated by soiling one's hands with the discharge and then permitting the hands thus soiled to come into contact with the food. Infection may be prevented by destroying the germs in the discharges by means of disinfectants. Therefore, to save yourself as well as others from infection, observe the following precautions:

"1. Keep on hand a 5-gallon jug or other suitable vessel filled with any one of the following solutions: Solution No. 1.—Chlorid of lime of the best quality, guaranteed to contain, at least, 25 per cent. of available chlorin and free from a strong odor on opening

the box, 6 ounces to each gallon of water. Solution No. 2.—Formalin (40 per cent.), 5 fluid ounces to each gallon, or a little over a pint and a-half to the 5 gallons of water. Solution No. 3.—Carbolic acid, 4 ounces to the gallon or a pint and a quarter to the 5 gallons of water. The choice of any of these solutions should be determined by the ability to obtain the pure article. Whatever solution is used, the vessel should be tightly corked.

"2. Have the receptacles for the stools (bedpan, night chamber, etc.) provided with a tight-fitting lid, or improvise a lid from several thicknesses of paper with some weight over it. It is better to have two receptacles of a kind, so that a clean one may always be on hand for the patient's use.

"3. When required for use put one pint of the disinfectant into the vessel (or, if the urinal is used, one-quarter of a pint) that the discharges may come in contact with the disinfectant on their very issue from the body. No harm is done if some of the disinfectant should spill on the bedclothes.

"4. Remove the vessel containing the discharges to some secluded place in the house, add enough of the disinfectant to completely cover the discharges, stir up the contents with a small stick, replace the lid and allow it to stand for, at least, two hours. Remember that the longer you permit the discharges to come in contact with the disinfectants, the more harmless do they become and the less obnoxious to handle.

"5. If there is no water closet in the house, the discharges after disinfection should be buried in the soil, at least 100 feet from any well or stream.

"6. When your hands become soiled with the discharge they should be washed, first in the disinfectant (neither of the disinfectants will injure the skin) and then with soap and water.

"7. All articles of the patient's clothing which have become soiled, and all the sheets, towels, napkins, etc., used by the patient, should be kept in solutions Nos. 2 or 3 (not in solution No. 1) until they are washed.

"8. Use the disinfectant freely on all occasions requiring the cleansing of soiled surfaces, and remember that 'an ounce of prevention is worth a pound of cure.'"

I think this covers the subject in a thorough and explicit way so that most, if not all, of our attendants can give us their intelligent

and efficient co-operation. I am sure we would all welcome the time when our board will follow suit, for a circular like this would save all of us many hours of our time during a year.

Our patient has, we hope, sufficiently recovered by this time to leave home or hospital and go to seashore or mountains to recuperate, or to office or to store for an hour or two a day; but has he ceased to be dangerous to the public health, or has he become one of the *most dangerous* and, at the same time, *least recognized source of contamination, bacilli carriers.* How can we know? Only by careful and tedious examination of the fæces and urine. In an asylum of 250, 7 bacilli carriers were found and J. H. M. A. Von Tilling, in The Albany Medical Annals of 1907, estimates that ½ of 1 per cent. of all typhoid fever patients find their way into this class.

A case was reported of a cook who could be definitely connected with 7 outbreaks of typhoid occurring in families in which she worked. Only a portion of her history for the last ten years could be traced, but everywhere she worked during that time typhoid fever followed her. The outbreak occurred in from ten days to a few weeks after the cook arrived and ceased when she left. The infection which appeared to be carried through the food affected in all 26 cases and one death.

Of course we cannot collect remuneration from our patients for this work, and as we should not be expected to work for the public for nothing, our Board of Health should look after these examinations in laboratories established at convenient points throughout the State in charge of capable pathologists whose findings would be conclusive and could be returned to us with least possible delay. This, of course, cannot come to pass at once, but I think we, as followers of Hahnemann and members of our State Society, should be in the fore front of advancement in this, as well as all other branches of our science.

To repeat very briefly:

1. Early and accurate diagnosis, or in lieu of that, treatment of all doubtful cases of fever as typhoid from a sanitary, as well as from a therapeutic standpoint.

2. Exact and explicit instructions to our attendants or nurses regarding proper disinfection, not only of fæces, but urine, sputum and vomitus in a form available for ready reference at any time.

3. Guarding against bacilli carriers by examination of fæces and urine.

DISCUSSION.

Dr. O. S. Haines: The essayist, to whom we have all listened with interest, brings again that important fact, the early diagnosis of typhoid infection, to the attention of those of us who forget essentials. And, we are not a small company. I cannot say that this early diagnosis of the typhoid infection, is as essential, after all, as an early "suspicion" regarding the nature of a given case. An early diagnosis is not always within the realm of possibility, but an early suspicion is always possible; and, a suspicious person is generally a cautious person. Now this paper makes it very plain that caution is a great thing in the treatment and management of a case of typhoid fever. I trust this matter will continue to be mentioned in our society meetings, until the entire profession fully realizes how much depends upon where a typhoid case spends the early period of his or her illness, and upon what he or she does during that important early period. In regard to the single matter of prognosis, I have often felt inclined to say that the prognosis in a given typhoid case depends very largely upon how early the patient seeks his physician, and upon how thoroughly that physician realizes that the essential part of the treatment is rest and proper hygienic management. But, Dr Terry goes farther than the safety of the individual. He has in mind the safety of the community of which that patient is a part. We should look upon every case of typhoid fever, as an active focus of infection, from its inception to an uncertain period in the future. And, we should surround the case with every safeguard that makes for the immunity of the people at large. Nowadays, if the physician is at all anxious to do his duty along these lines, he can, fortunately, accomplish every detail of the work as long as the patient is under his immediate care. The only possibility of failure lies in the indifference of the physician to his plain duty. But the writer of this paper has raised another question. He rather suggests that the responsibility of the physician does not cease with the immediate convalescence of his patient. How far it shall be possible for the physician to control his patient after he has ceased to visit him, and how long that patient continues to be a menace to the community, are questions which we might discuss farther.

REPORT OF THE

SECTION OF HOMŒOPATHIC INSTITUTES AND CLINICAL MEDICINE.

The Contributions of Homœopathy to Clinical Medicine, by G. H. Wells, M. D.

Internal Cutaneous Therapy, by Ralph Bernstein, M. D.

The Laity, the General Practitioner and the Specialist in the Practice of Medicine, by C. E. Myers, M. D.

Muscular Hypertonus of the Erector Spinæ Group; Its Clinical Significance, by E. L. Nesbit, M. D.

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THE CONTRIBUTIONS OF HOMŒOPATHY TO CLINICAL MEDICINE.

G. HARLAN WELLS, M. D., PHILADELPHIA,

Clinical medicine, as we find it to-day, is the growth of more than twenty-five centuries of medical experience. From the time of Hippocrates down to the present hour an innumeraable multitude of men have endeavored with all the energy of their natures to search out the causes of disease and to wrest from the hand of reluctant Nature the secret of their cure. As generation after generation of the coral insects, by their growth and death, gradually build up, from the depths of the unknown deep, fertile isles for the habitation of man, so generation after generation of medical men have contributed their portion of useful knowledge and died, until we see the noble structure of modern medicine rising out of the mists of antiquity and of uncertainty and becoming the joy and hope of mankind wherever sickness or suffering is found.

While we may well pause for a moment to bestow a word of praise upon Hippocrates and Galen and Harvey and Pasteur, and upon all of those, both remembered and forgotten, who have laid the results of their thought and energy upon the altars of humanity, it is my especial purpose to-day to bring to your attention the contributions that Hahnemann and his followers have made to clinical medicine.

Surely no one can review the history of the medical art without being deeply impressed with the profound effect that the teachings of Hahnemann have had both upon the theory and upon the practice of modern medicine, especially upon the highest department of all the medical art, namely, therapeutics. And yet, gentlemen, I am sorry to say that the eminent Dr. Osler, in a comprehensive review of the "Evolution of Medicine" in the first volume of his recent system of "Modern Medicine," fails even to make mention of the name of Hahnemann or of homœopathy. No better example of how unjust prejudice can narrow the perspective of an otherwise liberal-minded man could well be cited.

The effect of homœopathy upon modern medicine may be conveniently discussed under two headings:

(1) Negative or destructive influence.

(2) Positive or constructive influence.

1. The negative or destructive influence of homœopathy. In order to understand clearly the destructive influence exerted by homœopathy upon the errors of traditional medicine it is necessary to recall the state of medical practice prior to Hahnemann's day. To the mind of the modern physician the methods of treatment generally employed by medical practitioners during the eighteenth century can only be described as appalling, and it is no wonder that Ameke commenting on the therapeutic methods of that day says: "There are few diseases of which one can say that the physicians of that day did no harm." All therapeutic procedure was based upon certain mistaken theories of disease and as each new "authority" had a new theory to propound, it can readily be seen that systems of treatment appeared and vanished with great rapidity. For example, one of the most prominent authorities prior to Hahnemann's time was Kampf (1726-1789), who alleged that most diseases have their seat in the abdomen and are due to "infarcts." By "infarcts" he meant a condition of the large abdominal blood vessels, in which they "are plugged and distended by ill-concocted, variously degenerated, fluid-bereft, inspissated, viscid, bilious, polypous and coagulated blood. . . . " As examples of the diseases these infarcts may cause he cites epilepsy, cataract, deafness, consumption, cancer, fever, dropsy, etc. Kampf's system of treatment, based upon the above mentioned theory, of "infarcts," consisted principally in the persistent use of

clysters and emetics. One of his followers states that he had treated many sick persons who required more than five thousand clysters before they entirely got rid of the infarctus. Toward the close of the eighteenth century the system of John Brown, a Scotchman, began to be widely employed. Brown believed that he had reduced medicine to a true science. According to his theory every human being was possessed of a greater or less degree of irritability. Health depends upon the possession of just the right amount of irritation. Disease was divided into sthenic, characterized by too much irritation, and the asthenic, characterized by want of irritation. In the sthenic diseases "irritation diminishing" measures such as bleeding, cold, emetics, purgatives and diaphoretics were employed. In the asthenic diseases the most efficient remedies were meat, heat ammonia, musk, camphor and especially opium. In the treatment of typhus fever, for example, the Brownians gave 10 to 12 drops of tincture of opium every 15 minutes until sleep was produced, when the dose was to be doubled and was then to be gradually increased "till the health of the patient could be maintained by less powerful stimulants."

These two examples I have cited represents the most advanced and most "rational" systems of medicine of Hahnemann's day. Numerous other methods of treatment much more harmful and visionary had enthusiastic followers among the profession but however widely they differed in their theoretical foundations they all agreed as to the practical value of nauseating and drastic compounds, and of bleeding, leeching, blistering and other similar procedure calculated to make the patient as miserable as possible.

Such was the condition of the medical art when Hahnemann promulgated his principle of drug selection and condemned the accepted therapeutic methods of his day as being in the main useless, dangerous and harmful. The storm of invective and criticism that broke over the head of this would-be reformer is hard to understand until we realize that Hahnemann denied the efficacy of methods that had been accepted without question by physicians since the days of Galen and Hippocrates, and it seemed to the orthodox practitioner of that day that he was attempting to demolish the very foundations of the medical art. The fight became bitter and sharp. Those who had bled and purged and blistered returned to their task with re-

newed vigor, determined to demonstrate by the superiority of their results the fallacies of homœopathy. But unfortunately for the success of their efforts they forgot that "time obliterates the fictions of opinion and confirms the decisions of nature." Gradually, but surely, the fallacies of the old system gave way and were replaced by the milder and more effective therapeutic procedures of modern medicine. All through this struggle, lasting as it did for more than half a century, the homœopathic school persistently and forcefully opposed the following fallacies which they have finally succeeded in disproving to the satisfaction of every scientific physician:

1. The fallacy of attempting to force nature to a cure of disease by dangerous and drastic drugs.

2. The fallacy of indiscriminate blood-letting, purging, etc.

3. The fallacy of the general rule that the best therapeutic results are obtained by giving a patient the largest possible dose of a drug without causing dangerous toxic symptoms.

4. The fallacy of combining several drugs in a single prescription.

Many practitioners of the dominant school of medicine, especially those who are inclined to be fair-minded, are willing to admit the negative influence homœopathy has had upon medical practice, but they add that it has never made any positive contribution to medicine. We might reply that he who demonstrates the fallacy of a previously accepted truth contributes as much to science as he who discovers a new truth. But we have a better and more satisfactory reply, namely, that to the homœopathic principle can be traced not a *few* but *most* of the advances in drug therapeutics that have been made during the past hundred years. We will not waste words in needless discussion but let us look directly at the facts.

First, Hahnemann instituted the only scientific method of ascertaining the exact effects of drugs upon the human organism, namely, by administering them to healthy human beings and noting the symptoms and conditions produced by them. It is true, as certain detractors of Hahnemann have attempted to emphasize, that prior to his time Cullen, Haller and a few other physicians had conceived of some such idea and had even put it into practice in one or two isolated instances but I challenge any fair-minded man to deny or to disprove that Hahnemann was the first medical practitioner to make the provings of drugs on the healthy human being a systematic

study. Not only is this true, but so far was Hahnemann ahead of his times that it was fully fifty years after his first provings were made that the dominant school of medicine began to realize the importance of this method of studying drug action and even to-day its full possibilities are not generally recognized.

Second, Hahnemann and his followers established the importance of dietetic and hygienic measures in the treatment of the sick. It is true that such measures had been known and utilized by physicians from time immemorial but so imbued had the profession during Hahnemann's time become with the idea that bleeding, purging, stimulating, etc., were the essential and only successful methods of combating disease that dietetics and hygienic measures were relegated to the rubbish heap and had practically become a lost art. It remained for Hahnemann to restore to their merited place in the treatment of the sick these valuable adjuvants to the therapeutic art, and so carefully and successfully did he employ dietetic, hygienic and hydrotherapeutic methods that his enemies, denying the possibility of any therapeutic effects from his remedial agents, attributed his surprising success to the nursing and care which his patients received. After all human nature is the same yesterday, to-day and forever. History, we are told, repeats itself and how often do our old school friends to-day explain away our successes in the same manner.

Third, homœopathy has contributed to modern medicine a large number of useful remedies and has defined and enlarged the field of usefulness of almost every known drug.

Among the remedies that have been introduced in medicine by Hahnemann and his followers may be mentioned:

Apis mellifica.	Lachesis.
Calcarea fluorica.	Mercurius sol. Hah.
Causticum.	Natr. mur.
Coffea cruda.	Platinum.
Glonoine.	Psorinum.
Hepar sulphuris calcar.	Sepia.
Lycopodium.	Spongia.

Tuberculin and numerous other nosodes (particularly important because they were the forerunners of the modern opsonins).

The number of remedies of non-homœopathic origin whose

modern uses have been developed and defined by homœopathic methods is almost endless. Among the most important are:

Arnica.	Cina.
Aconite.	Colocynth.
Actaea racemosa.	Conium.
Aesculus.	Cuprum arsen.
Agaricus.	Cuprum met.
Allium cepa.	Drosera.
Aloes.	Dulcamara.
Ambra.	Gelsemin.
Anacardium.	Hydrastis.
Apocynum.	Ipecac.
Aurum.	Iris vers.
Baptisia.	Nux mosc.
Belladonna.	Phosphorus.
Benzoic acid.	Pulsatilla.
Bryonia.	Rhus tox.
Calcarea carb.	Sanguinaria.
Calcarea phos.	Spigelia.
Cantharis.	Thuja.
Camphor.	Veratrum alb.
Chamomilla.	Zinc.

So far has homœopathy permeated the therapeutics of the dominant school that Dr. Dyce Brown, in an address before the British Hom. Assoc. in 1902, found that seventy-one of the remedies they commonly employed were largely used on the principal of similars. Among this list are found:

Arsenic.	Mercury.
Antim. tartaricum.	Nux vomica.
Digitalis.	Podophyllm.
Hyoscyamus.	Turpentine.
Ipecac.	Sulphur.

Fourthly, homœopathy has contributed to modern medicine the only principle of drug selection that conforms both to the strict requirements of modern science and to the practical needs of the physician at the bedside.

I have said that the homœopathic principle of drug selection meets every requirement of modern science. Let me present some of the

facts that substantiate this statement. The principle laid down by Hahnemann, briefly stated, is, that in the treatment of the sick we are to administer the drug capable of producing symptoms similar to those from which the patient is suffering, and, as a natural corollary to this, he stated that the dose in which the remedy is to be given should be the smallest that would give the desired result.

The results of modern biological research absolutely confirm both of these propositions, and in a much wider sense, perhaps, than even Hahnemann conceived of or than most homœopathic practitioners of the present day are aware. The human organism, biology tells us, is composed of an incalculable number of protoplasmic cells. One of the fundamental properties of the protoplasm is its ability to react to stimuli, whether thermal, electrical or chemical. "Weak stimuli kindle life activity, (I am quoting now from one of the fundamental biological laws laid down by Rudolph Arndt), medium stimuli promote it, strong impede it, and the strongest stop it." This is a complete and direct corroboration of the postulate of the homœopathist that an agent that can destroy a cell is capable of stimulating it if administered in a sufficiently small dose. When we remember that bacterial toxines, as well as drugs, are included among the chemical irritant we realize that all the achievements of opsonic and bacterio-therapy, as well as the healing powers of drugs, are fully and logically explained under the homœopathic law.

If corroborations of these views from allopathic sources are demanded I will cite the following quotations from a lecture by Professor Dr. Hugo Schulz, of the University of Greifswald:

"Every circumstance that disturbs the physiological equilibrium of a single cell, or of a large commonwealth of cells, of an organ or of an organism, acts as a stimulus."

"The practical application of drug power deals with organs and organisms affected with disease. They are able to react to stimuli that could scarcely be perceived under natural circumstances of complete health."

"The medicine must be rightly chosen. It must be the one to arouse from the diseased organ the most definite reaction possible under all the existing circumstances."

"Before a drug can be used at the bedside at the fullest advantage, it is absolutely necessary previously to interpose the experimental use of it on healthy individuals."

Dr. C. P. Wheeler, from whose interesting and valuable booklet, entitled "Fools or Knaves," I take these quotations, adds, "It is bare justice to Dr. Schulz to state that he gives full recognition to Hahnemann."

My list of the contributions of homœopathy to clinical medicine would not be complete without mentioning that the Dudgeon sphygmograph, now almost universally employed by clinicians, was invented by Dr. Robert Ellis Dudgeon, for many years one of the foremost homœopathic practitioners of England. We can also state with feelings of satisfaction that both the father and grandfather of M. Curie, the discoverer of radium, were well known homœopathic physicians.

Fellow members of the State Society, in this brief address I have endeavored to refer briefly and superficially to some of the contributions homœopathy has made to modern medicine. Surely the record of our school has been a noble one. The benefits which homœopathy has conferred upon mankind can never be weighed in balances of human construction or calculated in terms of silver or gold. The fact that we have received no honor or credit from that body of medical men who have drawn so freely from our system of practice detracts not one iota from the glory or from the worth of homœopathy. Let us be content that we are the exponents and guardians of a system of therapeutics that has overthrown error, that has established therapeutic methods and principles that will endure through all time and that is fast permeating and supplanting every other method of drug therapy.

Despite the traditional antagonism of our opponents the discoveries of modern research are so rapidly confirming the correctness of the essential principles for which homœopathy stands that a general recognition of this fact by all scientific physicians is inevitable. Until such recognition is given to develop and perfest the art of homœopathic therapeutics is our urgent duty; to extend the benefits of our system freely to medical practitioners and laymen of all schools and creeds is our wish and privilege; to guard the dignity of our principles and to preserve the legal and professional rights of practitioners of our school is our sacred trust.

DISCUSSION.

Dr. T. H. Carmichael: I thought, as the doctor began, of the modesty of our men and the fact that we should, in a measure, come out of our shell and present to the general medical world in a manner that cannot be misunderstood, the fact of our contributions to general medicine and especially to that most important part of general medicine, the art of healing. Sometimes the art of healing, as the true measure of the physician has been lost sight of and in a measure this is true of homœopathic physicians. In the collateral branches of medical science, however, there has been a great awakening recently on the part of medical men. You have only to read some of the journals now advocating methods that have been in vogue by us for years. The very provings which we have long cherished are in a measure coming to be recognized as the only way in which the action of drugs can be ascertained. If there is any practical thought from the paper it should be to induce us to do more work in the lines we have long followed. There should be a new enthusiasm put into the homœopathic school because that school stands for all that is advanced in medicine. We should take up the proving of drugs. As regards the opsonic theory the homœopathic occupies practically the same ground.

INTERNAL CUTANEOUS THERAPY; INCLUDING THE INDICATIONS FOR SOME OF THE MORE IMPORTANT HOMŒOPATHIC REMEDIES.

RALPH BERNSTEIN, M. D., PHILADELPHIA.

Last year it was my pleasure to read a paper before this worthy society, titled "Topical Cutaneous Therapy," and in which paper the various questions of local treatment in skin diseases were considered. It is my intention at this time to read a companion paper, titled "Internal Cutaneous Therapy," and in which paper shall be considered the various factors concerned in the internal treatment of cutaneous affections.

Permit me to begin, if you will, by giving the routine which is followed in my private practice and in dispensary and clinical work, as well, that is, when it is possible to have the necessary directions

carried out, and the patient is willing to give hearty co-operation and to lend a helping hand.

Whenever a chronic dermatose presents itself for treatment, the patient is at once advised what the properly indicated homœopathic remedy has done and can do in the case in question, but that time and patience are very frequently most important factors to be considered, and that topical treatment will only be ordered when and where it is necessary, always giving the indicated remedy alone, when the patient is enabled and willing to understand the law of homœopathic cure.

It, of course, being understood that where the control of acute symptoms is of such paramount importance that immediate relief is necessary and where the condition is of such a parasitic nature that no remedy would ever alone relieve, the indicated topical remedies are applied.

The foregoing explanations having been made, the patient is next advised that food must be totally abstained from for twenty-four hours; a glass of cool, distilled water every hour being allowed and being ordered as a necessary adjunct to the treatment. One grain of Merc. dulc. in divided tenth grain doses is administered during the twenty-four hours, which is followed by a bottle of the citrate of magnesia. A cup of hot water, slowly sipped on retiring and arising in the morning is as well ordered, and is to be continued throughout the treatment.

The patient is now ready to receive the indicated homœopathic remedy, one dose of which is given at bed time, the potency, varying according to the patient's individualities and idiocyncracies and according to the results of experience, as to which potency produces the best results.

The patient is next advised to eat only those foods which experience has demonstrated to be harmless; if, however, the patient is neurotic upon the subject of diet, and has abstained from all kinds and sorts of foods, a full diet is at once ordered regardless of the patient's likes or dislikes; if quite to the contrary the patient has been a full and hearty eater, the amount of food consumed daily is cut down one-half.

Before proceeding further permit me at this point to explain why the indicated remedy is best administered at night and why distilled

water is preferred to others in the routine of treatment. Night time has always appealed to me as the best time to administer the indicated remedy for the fact that at this time the body is in an absolute state of quietude, and if the remedy be administered just before retiring there is by the time the patient has been claimed by sleep a greater absorption going on because the body is in a more or less of a fasting state and elimination is, at the same time, more or less delayed; in other words, the patient's entire economy is being affected by the remedy, and there are no other activities going on to detract from the infinitesimal action of the remedy. No more than one dose for the twenty-four hours is administered for the fact that I do not believe that one can expect to get the finer and more definite action of the remedy, if too frequent dosage is practiced. Distilled water is advised because of its being an absolutely pure water, and a soft water, it is therefore a most perfect solvent and at the same time acting as a constant flusher, thus stimulating the kidneys to healthy activity, and thereby diluting and getting rid of much of the bodily toxines and ptomaines which are often more than responsible for many of the dermatologic affections.

Certain it is that water drinking is quite obnoxious to some patients, but kind and gentle persuasion will often convince them of the good to be obtained thereby. Unless contraindicated the patient is advised to drink a glass of the cool distilled water every hour, beginning, at least, an hour after meals and continuing up until an hour before the next meal. Frequently it is advisable to start the patients on smaller quantities of water when they rebel at the thought of taking a glass full every hour; one patient I have in mind was compelled to start with a tablespoonful, having an absolute abhorence for water, now she takes her glassful and seems to enjoy it.

I shall now return to a further consideration of the diet as a therapeutic factor in the treatment of skin diseases; permit me to quote from my article, "Modern Thoughts on Eczema," as published in the May Hahnemannian of this year. "Occasionally a fluid diet is recommended for a few days in the more acute dermatologic affections, milk being recommended as the ideal. Now I can possibly see how milk can be considered as a fluid diet, for we are all well aware what happens to it as soon as it strikes the acid medium of the

stomach; the bowel movement often bearing mute testimony to the solidity of the curdled mas. The excess of the nitrogenous diet which we are all more or less addicted to is more than responsible for many attacks of skin diseases; and is certainly accountable for their existence and persistance. Certain it is that there is a close relationship existing between the nitrogenous diet and the dermatologic affection known as psoriasis. There is hardly a patient with this disease who has not noted for himself that when he abstains from a meat and egg diet his psoriatic lesions become less and their congestion decreases and, whereas, when a full nitrogenous diet is indulged in very frequently attacks of psoriasis are brought on. A change of diet in cutaneous affections is offen productive of good; it is very frequently my habit to order a complete turning upside down of the patient's dietary regime, even if the diet is presumed to be an ideal one, with the astonishing result, that very frequently healing rapidly sets in.

I have almost bravely gotten over the old adage, "avoid sweets and starchy foods," for I have frequently failed to see where a moderate amount of these foods has any deleterious effect upon dermatologic affections. Certain it is that many individuals cannot digest these substances, then, of course, they are to be prohibited, but the general restriction of these foods for all cutaneous affections, is not at all necessary.

Of more paramount importance is the manner in which foods are taken than is their character. It is not so much what a patient is accustomed to eating, as it is how he eats it; whether his mind be calm or troubled, whether he eats slowly or quickly, whether he eats regularly or at irregular intervals; these are the factors to be pointed out to our patients, if we would want a most potent adjuvant in the cure of their skin ills.

We are now ready to take up the consideration of a few of the more important homœopathic remedies and I must here again reiterate, as I have done many times before, that the homœopathic remedy properly administered and indicated, has and will continue to cure many of the cutaneous affections, even some of those which are micro-organic in character, and without the use of topical applications. This fact has been many times demonstrated in our public dispensaries and clinics where it is almost impossible to have pa-

tients carry out the routine as given for local treatment, having wandered from one old school institution to another, until, at last, they come to our homœopathic institutions in despair, to see what can be done for them; and very frequently they are either quickly cured or markedly relieved.

In taking up the consideration of the more important remedies, I shall merely mention a few of those which clinical experience has demonstrated to be of excellent value.

Aconite is especiall useful in pruritus without manifest eruption and which is of recent occurrence; the sensations are those of tingling, crawling, pricking, or biting; usually worse at night and on face and extremities. There is that usual aconite fear that something is going to happen and this time it is some dread skin eruption is about to appear.

Erythema multiforme occasionally responds to aconite; lesions on back of hands are urticarial in character; there are erythematous spots on face; the limbs show discolorations in various forms; there is marked restlessness; the sensations are those of pricking and itching; attacks follow anger or fright. Aconite seems to give the best results at the sixth decimal attenuation.

Apis.—Especially useful in urticaria when the blotches and wheals are sensitive to the touch, with burning and stinging, the sensations are always worse from heat and better after bathing with cold water. While there is feverishness there is a marked absence of thirst. Suddenly appearing swellings of all sorts and forms, often changing their location from one place to another, even appearing on the mucous membranes, rapidly respond to Apis. Swelling of the hands and lips, especially in the fall and spring of the year from no demonstrable cause, are relieved by this drug. Dermatitis venenata, especially when attacking the face, causing it to puff up so that vision is impossible, is quickly relieved by Apis. This drug is as well useful in erysipelas when the attacks are upon the face, extremities or head, being œdematous and pale red in nature. The third decimal dilution seems to give the best results.

Belladonna has demonstrated its usefulness in acne rosacea, especially in full blooded individuals, in the earlier stages, where there is associated sensitiveness to the touch; at the time of the menopause in excitable women, quite useful, in the secondary stages when

there is associated pustular formation; there is great heat in the cheeks, associated with throbbing. Belladonna, as well, does good in erysipelas, when associated with cerebral symptoms, marked sensitiveness, early stages associated with marked redness and aggravated by heat. The third to sixth attenuation seems to give the best results.

Cantharis is of use in those forms of dermatitis venenata which are associated with bleb formation rather than vesicles; is useful as well in burns which are associated with rawness and smarting and are relieved by cold applications. Cantharis is as well of use in the acute vesicular forms of eczema, especially when on the hands and face, being associated with burning, smarting, itching sensations. Secondary eczema about the scrotum and genitals following excessive perspiration about these parts usually responds to Cantharis. The third decimal dilution seems to give the best results; the same remedy diluted in water and applied locally seems to afford wonderful relief.

Graphites is of service in those forms of sub-acute or chronic eczema, where marked vesiculation or a serous sticky exudation is present; especially of the genitals, face, scalp and ears. It is especially indicated in eczemas about the ears and when there is not much thickening or crusting, but there is a tendency to cracking and bleeding; squamous eczema of the palms has responded to this remedy; and is useful when the dorsal surfaces of the hands and arms are affected, there being much infiltration and fissuring. Eczemas of the vertex, with marked crusting and foul odors of decomposition, from the dried secretions, respond to this remedy. All conditions itch more at night, are worse from warmth, and the scratching seems to increase the exudation.

Graphites has as well been of service in altering the appearance of scars and is of service in the early stages of keloid and fibroma. Dilutions from the sixth to the twelfth seem to act best, but the higher dilutions are at times indicated, especially when the case is a typical one.

Hydrocotyle. This drug has more than once demonstrated its usefulness to me in psoriasis and, when especially indicated, never fails to do good; it is to be remembered, however, that the nitrogenous diet must be absolutely prohibited. Hydrocotyl is indicated

in psoriasis when the lesions are circinate or become gyrate in outline, the lesions are on the trunk and the extremities; and at times on the palms and soles with marked thickness of the epidermis. The sixth decimal has done the most good in my hands. Lastly, I shall mention the indications for Petroleum in eczemas. Petroleum is indicated in those sub-acute and chronic cases which are associated with fissures. The lesions are between the toes and fingers, between the thighs and on the scrotum, back of the ears and on the occiput. Then opposing surfaces have a red, raw appearance, the discharge being profuse and accompanied with smarting and burning; a foul odor is, at times, present. The finger tips are at times rough and thickened with deep fissures.

DISCUSSION.

Dr. E. M. Gramm: Dr. Bernstein's paper is certainly one that goes in the right direction. The settling on a firm basis of the indications for our homœopathic remedies is one that we should all engage in. The doctor admirably points out the indications that are found in the books when certain remedies are to be fitted to a case; but it seems to me that when we go over our Materia Medica, if we rely alone upon the indications found on the surface of the body we will not be able to select a remedy properly, by reason of the fact that the stage of the disease was not indicated in the records of the provings and we are left at sea. Under Arsenic, for instance, we have so many variations and so many opposite types of eruption that we cannot explain, except by the fact that many conditions have been huddled together without the sequence of this development having been noted. It is my habit, when treating a case, not to rely too much on the local indications, particularly in sub-acute or chronic attacks. Skin manifestations, many times, exist by reason of changes that have occurred in other organs of the body, therefore, the symptoms found in every organ of the body are the ones that we should look into. Local applications do not produce any injurious effect upon the organism. I see, from day to day, that the correct local application is of benefit. There are certain forms of skin diseases that do not need local applications. This is not a doctrine that is opposed to our law, but we need to look farther than the surface in selecting our remedies. Some remedies have peculiar symptoms—peculiar

local conditions, and they are of great value in selecting the remedy. We should clearly fix in our minds the diseases in which we need local applications, and differentiate them from those in which none are required.

Dr. H. W. Champlin: I want to emphasize what the doctor has said about the remedies and also about fasting, drinking water, eating sweets, etc. His use of Calomel and Magnesia I do not know anything about. His reference to the homœopathic remedies is first-class. What he says of Cantharis could also be said of all the other remedies. By that I refer to the local use of the same remedy that is given by the mouth. The doctor omitted some of our old stand-bys, such as Sulphur, Mezereum, etc.

Dr. M. A. Wesner: I want to know what the indications are for calomel in these cases. I think if you mercurialize your patient you are sure to have trouble; neither would I use external applications. If you use these measures you will suppress the disease. I use the indicated remedy in a reasonably high potency.

Dr. E. A. Krusen: I always enjoy Dr. Bernstein's papers on skin diseases. There is one phase in the symptoms upon which he has only touched very little, and that is the mental symptoms. I have found these symptoms of greater value than most of the others. In one case I used Nux vomica and had remarkable results with no other treatment whatever. Two months ago, after prescribing certain remedies in another case, I discovered a whole train of gastric symptoms, and thinking that I ought to rid her of these I disregarded the cutaneous symptoms. When this patient returned I found that the psoriasis, for which I had been treating her, had disappeared and the case was cured. She is now rid of skin symptoms and absolutely well. The suggestion in reference to dietetics is of great importance and is often overlooked. The mental condition, and, in fact, the general condition, of the patient in the disease should be more of a guide in selecting a remedy than the disease itself. Treat the individual and not the disease and then you can always accomplish your purpose. As for topical applications, I see no reason why we should not use the indicated remedy locally as well as internally. This is good homœopathic treatment. In some diseases, especially burns, the topical application will relieve the burning. Like Dr. Wesner, I do not see why we gain anything by the use of Calomel.

DR. T. H. CARMICHAEL: What I had to say has been already said. My idea of Dr. Bernstein's reference to Calomel was that he used this where a toxin was present and it was used for the purpose of cleaning out the individual; that he gave one cleaning out of the intestines and followed this up by a Citrate of Magnesia. Having said that much in his defense, I will take exception to it in most cases. There are various other methods that might be applied. However, that is individual preference. We can frequently do better in cases of toxæmia by the properly selected homœopathic remedy. There is one remedy that he did not mention and that is Sulphur, the remedy that is used when others are tardy in their action and the remedy so often indicated in most of these cases, where the patient complains of hot hands and hot feet, and itching relieved by scratching, worse at night, indisposition to bathing. Sulphur, it seems to me, ought to have a place in the therapeutics of skin diseases.

DR. RALPH BERNSTEIN: In closing, I should like to say a few words in reference to the totality of the symptoms. We should always take into consideration the totality of the symptoms. The remedies mentioned were simply a few, and it was not intended to mention all. There is no doubt that many of our remedies are of great value. The question of the use of Calomel has been answered by Dr. Carmichael. It is especially useful in cases where the patients have been drugging themselves. Concerning mental symptoms this would come under the totality of the symptoms. In regard to water, locally, there are many skin diseases that would be benefitted, but others would not.

THE LAITY, THE GENERAL PRACTITIONER AND THE SPECIALIST IN THE PRACTICE OF MEDICINE.

C. E. MYERS, M. D., PHILADELPHIA.

The subject I have selected for my paper, "The Laity, the General Practitioner and the Specialist in the Practice of Medicine," is rather a broad one, and divided, as you will notice, into three sections, but it seemed necessary to touch upon each one of these, as they all bear so close connection one with the other. As a general practitioner of medicine, I would like to ask the question, "What

is going to become of the general practitioner in the near future?" Shall he, like that magnificent animal, the buffalo, gradually disappear from the face of the earth, not to be recklessly slaughtered, but rather to be starved out of existence. I bring this matter before you, due to the fact that there are, probably, to-day, three great evils threatening the general medical profession, namely: First, the organizations that exist all over the country known as lodges, and who employ what is called a lodge physician. Second, the growing tendency for certain classes of people, who are good wage earners, who live beyond their income and fail to pay the doctor, not only the doctor, but almost every business person that they deal with. Third, hospital abuse. Fourth, this, I shall not class as one of the evils, but simply a growing tendency for the specialists in the practice of medicine to absorb our patients' money, which we, I feel, are justly entitled to a portion of. Of the two evils mentioned, probably the greater one is the lodge doctor. Now, you are well aware of the fact, that all over the country, not only this, the United States, but in many other countries, some much older than ours, the medical profession is suffering from the effects of the lodge doctor. I understand that in England to-day 75 per cent. of the population employ a lodge doctor. Of course, you all know that labor to-day is well organized, and for what does it seem? Namely, for short hours and large wages. They not only demand large wages for their skilled labor, but, in fact, for every person belonging to such an organization, and, on the other hand, to employ skilled labor, the doctor for a mere pittance. Now, does it not seem that these labor organizations or lodges are taking a stand of two extremes. First, to demand high wages for skilled labor, on the other hand, to get skilled labor, for, I might say, nothing. What is the effect upon the general public by these so-called lodges. Of course, we are aware of the fact that every person does not belong to a lodge, and yet, when we read the articles that are being published in our medical journals, we find that in certain sections of the country and the city they have already succeeded in getting into its lodges almost the entire population. I, only recently, read an article in the New York Medical Record which states that nearly every person on the east side of New York City employed a lodge doctor and the competition and electioneering done by physicians to get elected to such a position is almost beyond one's

comprehension. Some physicians having given banquets to the heads of the organizations, that cost them several hundred dollars, so as to get their good will and weight in having them elected. Now, the bad effect of this question does not lie entirely with the members directly, but the effect it has upon persons who do not belong to such organizations is equally as bad. For instance, two families live adjoining. One man belongs to a lodge and, probably, the wife, as well, as there are already in existence a large number of women's lodges. This family, it costs them $2.00 a year for their medical attention, plus the attention to the other portion of the family, who are, probably, not old enough to belong to such an organization, but, who, undoubtedly, as soon as possible, will follow in the footsteps of the head of the family. The adjoining family does not belong to any lodge. I treat that family and charge them our regulation charges, whether it be one dollar or two dollars a visit, whatever the physician charges for his visits. Now, this family that I treat cannot help but feel that they are being charged too much, and, if there should be in the make-up of my patient, a little dishonesty, they, in all probability, will manoeuvre in some way to pay me, the family physician, probably, about half for my attention. Why? Simply because the family adjoining them have demoralized them, by making them feel that medical attention is only worth one dollar a year. Now what is going to be a remedy for these three evils, and the one I have called a condition? Now, I do not wish to speak despairingly of beneficial lodges, but, on the other hand, heartily recommend every laboring man, particularly such as have families to belong to one or more of such lodge or society. Why? Because, they act as a health insurance and a protection to that man's family, when he is sick and unable to provide for them. I have known of several instances where it was a God-send to the family to receive benefits from these societies. The small amount for dues that a member is required to pay is hardly missed by him when he is able to work, but the benefits derived by his family when he is sick cannot help in many instances be but a blessing. I do not feel that it is necessary for these lodges to lower the standard of the medical profession by offering a physician such a paltry sum to guarantee medical attention to a member for a year, but on the other hand I feel that every physician realizes the great benefit derived from these noble, charitable

organizations and also feel that every physician would gladly attend any member of such a society free of charge, providing the society notified him that such a person was in need of charitable medical attention. The general public can be divided up into four classes. The first class, the people who have money and are willing to pay for their attention. Second class, those who are only reasonable wage earners, but who are honest, don't belong to any lodge, they pay us as much as possible for our medical attention out of their savings, beyond their absolute necessities of life, which, as, you know, are housing, clothing and food. These two classes are deserving of our careful consideration. The third class, the unfortunate poor, widows, orphans, old persons living without any source of income, in fact, all such as are unfortunate through force of circumstances. This class also deserve our most careful consideration. The fourth class, those who are good wage earners, constantly employed, but who are living beyond their income. This class of people make a business of not only beating the physician, but, in fact, every business person they come in contact with, and this class is, probably, our greatest load-stone. They are not deserving of our consideration. In my estimation they are no more or less than highway robbers, and are we going to attend this class of people as we have done heretofore? I, for one, say, no. Just how to remove these two evils that I have mentioned, requires a great deal of consideration. In my section of the country, the Twenty-first ward, Philadelphia, comprising Wissahickon, Manayunk and Roxborough, we have some thirty physicians practicing general medicine. Out of this number there are four homœopaths. For several years it has been my aim to devise some plan whereby we could eliminate the class of patients, whom I termed as robbers. Less than a year ago, through the aid of the leading men, of the other school, we called a meeting of all the physicians and organized a local medical society, and to-day we have enrolled, as membership, nearly every physician practicing in our ward. This society is known as 'The Twenty-First Ward Medical Society," organized for social, scientific and protective interests. The social feature is intended to eliminate many of the conditions of the past in which physicians were antagonizing each other to their own disadvantage. The scientific feature involves the reading of scientific papers by the different members at each meeting, which is

once a month. The protective feature is, in my mind, the all important one, and, in the few months that we have been organized, I feel that we have arrived at some conclusion, which may be a benefit to mention to you, particularly to such as live in and practice medicine in small towns, where the population is dependent upon the physicians of that town. It probably does not appeal to large cities, yet I am satisfied if the medical profession would divide the city up into districts, and have a local society formed for each district that the same benefit could be derived that we anticipated from ours. I would just like to read to you, right here, the report of the Business Committee that was appointed by our Local Medical Society to investigate, as to what could be done in the way of bettering our financial positions in practicing medicine. This report was submitted to the society at its last meeting and, as chairman of that committee, submitted the following report:

Manayunk, Phila., Sept. 15, 1908.

Mr. President and Members of this, the Twenty-First Ward Medical Society:

Gentlemen:—As chairman of the Business Committee appointed at the June meeting, I wish to submit to you our report.

I first wish to state that your committee has fully realized the importance of the matter placed in their hands and have given it their careful consideration. The points of importance in this report have been carefully considered by us separately, and discussed collectively. We have taken the trouble to discuss some of the very important points with intimate friends and patients of ours, who are able business men and we have met on two occasions and have gone over the ground thoroughly, and feel that we have reached a conclusion, which, seems reasonable and justifiable to the physicians of this society, as well as to every physician practicing medicine in the United States.

To be able to place our report before you intelligently, it will be necessary to make a few preliminary remarks. Your committee has divided the laity, who represents our business into four distinct sections. First, the people who have means and are able to and always willing to pay for their medical attention. This class of people we can make no reference to, other than that they deserve our most careful consideration. Second, the class of people who are, I

might say, reasonable wage earners, yet in many instances have large families, but are perfectly honest. This class of patients make every effort to pay their accounts, they, at least, pay us what they are able to spare, beyond their actual needs of living, rent, food, fuel and clothing, four absolute necessities of life. This class of people we feel also deserve our careful consideration. A third class, who are poor, I might say, unfortunately poor. Among these, we would class widows, orphans, old people living without any source of income, families where the head and earning factor is possibly chronically afflicted, in fact, all such as are unfortunate, not through their own negligence and laziness, but who are unfortunate through force of circumstances. This class of people are deserving of our most careful consideration, and we feel that we are well able to care for this class of people free of any cost whatever to them, and we might add, a pleasure to us. The fourth class to be mentioned is our load-stone, namely,—the class of people who are good wage earners, yet, who live far beyond their income, who spend their money carelessly and who make a business of not only beating the doctor, but, in fact, everyone else with whom they come in contact, in a business way. This class of people we feel are not deserving of our consideration, and this is a class of people that your Business Committee wishes to lay special stress upon and has endeavored to formulate some plan, whereby, we, in the near future shall be remunerated for our attention to them. In fact, the profits of our profesion in the past have simply gone to this class of people, and, if in the future, we are able to collect our money from them we shall then be able to save a little money as a future protection to our families. Your committee has formulated an idea of reaching this last, the fourth class, that I mention, and in this way, that each physician will carefully look through his delinquent accounts, which are generally among this last class of persons mentioned, and send to them a letter as follows:—

Dear Sir:—At a stated meeting of the Twenty-First Ward Medical Society, it was decided to have its members call the attention of all their patients to their delinquent accounts. It was also decided by the Society to take definite action on all delinquent accounts outstanding by December first, for which no satisfactory arrangements have been made. Kindly call on me regarding the inclosed bill before December first, and oblige.

Your committee feels that this letter should be in printed form, simply leaving a space blank for the person's name, amount of bill, and your own signature. The committee would suggest that sufficient copies of this letter be printed, and placed in the hands of each physician, asking him to forward them to his delinquents. This letter should bear the official heading of this Society, which would be as follows: The Twenty-First Ward Medical Society, Organized for Social, Scientific and Protective Interests. We do not look upon this as a dun, but simply calling the attention of this class of negligent persons to their account. We feel that such a letter will have great weight, due to the fact, that, when a person who has made a business of beating five or six, or, probably, all of us during the past ten or twenty years, receives one of these letters from each physician, whom he has made a business of beating will soon arrive at the conclusion that he must make some arrangements regarding his accounts, as well as paying for his attention in the future. We would also suggest that when these letters are sent, each man keep a record, the name, address and amount of each person that he sends this letter to, and, if, at the end of the stated time, say, November first, or December first, whatever the Society may decide upon, he has made no explanation as to what he proposes to do regarding the account, we feel then that it can be clearly understood that he does not propose to pay you or me or anybody else, for medical attention. Then we suggest that he be placed upon a list and each member have this list for further reference, so that when such person applies to you or to me for medical treatment, we have but to look over our list and see whether he is among the persons whom we may class as professional beats, and that we should refuse to attend any such person. This list can be very easily arranged by each man submitting his report of persons, who have not called to make any explanation to a committe whom you may select to take charge of this matter. This can be taken and alphabetically arranged, each physician can have such list on his desk, and in a few seconds of time see whether it is worth while to respond to a new call or not. Of course, some people imagine that a doctor is compelled to go at any and all times. In this they are very much mistaken, and, if we have such a list, and this person whom we refuse to attend attempts to cause trouble in any way, we have then at our hands something to

prove that he is nothing more than a beat. I, myself, have taken the trouble to consult several able business men, some of them patients of mine, some of them simply friends. Their opinion on the action that the committee submits to you, looks to them like the most fair thing possible for physicians to do. It will give us more time for the people who pay us, more time for the people to try to pay, and for the unfortunate. Let us divide our time among these three classes and not the other. This is about all your committee has to report to-night. There are a number of other business questions that pertain to the medical profession that certainly require attention and I would ask that the Society let this committee be continued to take up each month some one of the questions and submit them to the Society, so that within a reasonable time we shall be able to place the business of the medical profession in this ward upon a good sound basis.

This report was accepted unanimously by the Society and I feel positive that if this carried out strictly by the medical profession, whereas, we may not be able to collect a very large percentage of our already outstanding delinquent accounts, yet, I feel that in the future we shall be able to collect a very much larger percentage from our work. As to the lodge question, there can be no question whatever, but that it is degenerating the general practice of medicine, probably more than all other things combined. It would seem to me that if every medical college teaching men to go out and practice medicine, would have connected with it a chair of business, so that these men could be taught some business principles before engaging in the practice of medicine, teaching them to avoid accepting, not only to avoid, but to prohibit from accepting positions as lodge doctor, as well as instructing them not to treat a class of persons who make a business of beating not only a doctor, but everybody, that the practice of medicine would soon be elevated.

The action that our Local Society is taking I feel will eliminate that class of persons from, at least, the practice of medicine, and it is our intention to have every new man that comes into our district to join our Society, and this will start him out on the right road. I feel satisfied that if this Society had existed when I started practicing medicine, that I would now be ten thousand dollars better off to-day. There are many other business questions pertaining to the

practice of medicine that we propose to rectify. We propose to eliminate the lodge doctor. Simply by every doctor refusing to accept such a position and to prevent any friction between the Society and the so-called lodges, to notify each lodge that the medical profession will gladly attend free of cost any person, a member of any lodge that may be in need of charitable attention, when such notice of needed attention is signed by an officer of the lodge.

Now, you all know very well that no doctor can render medical attention to any one person for a dollar a year, and the accepting of such a position simply means that he is making a bid to steal some other doctor's family, and to do so, he is offering trading stamps as a premium. This same lodge doctor must evidently, in his own estimation, rate his ability far below what a doctor's estimate should be, particularly, with the extended and practical instructions of all reputable medical colleges of to-day. This man ought to have entered some other walk of life, where he could have bid for business; this would have been a credit to himself and a good riddance to the profession. The father of a family I attended had typhoid fever. He belonged to a lodge and his lodge doctor attended him. He was sick sixteen weeks. This attention, I understand, netted the doctor half a cent per visit. Now it is possible that had this man had a good physician, he may have recovered in eight weeks, and after all, would this not have been economy, both financially and particularly as to his life? I must confess that I do not know a single homœopathic physician who holds the menial position of lodge doctor, and if there are any such in our profession, I trust that every local, State and national medical society will take steps to exclude not only such as already belong, but prohibit any such from becoming members. How about the lodge druggist? This is an example. I wrote a prescription for a patient for Seiler's Nose and Throat Tablets for Gargle and Spray. This patient unfortunately took this prescription to one of those lodge drug stores, and what did the druggist give him? Why, Corrosin Sublimate and almost burned the patient's nose off. I took these tablets and the prescription back to him and asked him if my prescription was not plain, he said, "Yes, anyone could read that." I said, "Then what did you give him Corrosin Sublimate for?" He said, "They are antiseptic, aren't they?" I said, "Of course, and you are out of jail, that's just about the dif-

ference." The third evil, and by no means the least, that is threatening the medical profession, is, hospital abuse. This is growing rapidly. The abuse lies among two classes of persons, those who occupy your hospital beds, which really are intended for such as are in need of charity and not by those who are well able to pay for their attention. Some of this class belong to the so-called beneficial lodges. I know personally of several such persons, who occupied a charity bed in a hospital and their income from benefits that lodges were paying them and when their employment paid them while sick or injured was three times greater than their normal wages. One case that I know of, was having an income of thirty dollars per week while occupying a charity bed. Who is responsible for this? You, the hospital heads, by allowing both your interne and dispensary abuse to continue. Another factor is the care you are giving to a foreign, not naturalized element, who carry all their money out of the country. Beware that you do not encourage this foreign and anarchy element too much, or possibly they will some day not only burn your, but my home down over our heads. They will not be satisfied with hospital care alone, but will demand more.

Now about the specialist and the general practitioner. I shall now attempt to divide these classes of practitioners of medicine, as honorable, conscientious and considerate men, and that of "Grafters." Let me take, first, the oculist. A patient of mine, whom I sent to a man whom I consider ONE of the honorable oculists. He examined my patient, prescribed glasses for her, which seemed very satisfactory to the patient. About six months or a year later, she developed a severe attack of grippe and after this illness her eyes did not seem so comfortable. Some friends of this woman informed her that the reason her glasses were not comfortable was due to the fact that the oculist did not treat her eyes long enough, before he gave her glasses and, finally, persuaded her to go to her oculist, which she did. This oculist treated her eyes, as he calls it for about two or three weeks, and then changed her glasses and charged her fifty dollars; during the following year or eighteen months she had several sittings of treatment and several changes of glasses, and, altogether spent with him about four hundred dollars. She finally became disgusted and went back to No. 1 oculist. He looked up her record and looked at the glasses, and said, "I did not give you

these glasses, did I?" She said, "No, I had them changed since I was here." However, the doctor went on with the examination and when he was through asked the woman if she still had the lenses that he had prescribed for her and asked her to bring them to him, and he then told her to go to her optician and have them put in her frames, as her eyes had not changed one bit since he first examined them, although oculist No. 2 has a large practice, and is rapidly growing rich, he is, in my mind, one of two things, ignorant, or a high-handed robber and grafter.

Professional courtesy prevents me from mentioning the other man's name, but I can say he is one of that school, which claims to be the only scientific school of medicine and above reproach in every way. Here is a sample of another oculist. A young woman only in moderate circumstances, went to an oculist for treatment. He treated, don't forget that word treated, as a lot of them are not only treating the patient locally, but are prescribing for rheumatism and run-down condition of the system and what not. So I would say to the general practitioner be careful to whom you send your patient. You may never see him again, the specialist may continue to act as your patient's physician, or he may be passed down the line, as is not infrequently done, as to the last patient mentioned. She told the oculist she would have to go somewhere else to get her glasses and he immediately gave her a receipted bill for the already thirty-two dollars she had paid him, which included her glasses, which he immediately prescribed for her. Had this patient not taken the stand she did, this man undoubtedly would have continued to treat her for, possibly, months, and may be the rest of her natural life. Four dollars per week, two hundered dollars a year. It would just take a hundred of such fools to net that oculist $20,000 a year. Another illustration: A few years ago, I had a patient who was suffering with an obstinate neuritis of the right arm. This person was a nervous person, who had a chronic Bright's, as well as an arterio sclerosis and, as the case was a very obstinate one, I referred her to a specialist. The specialist treated this case for a short time, when he discovered that this woman suffered from some internal complication. This, she had never acknowledged to me, although I had questioned her carefully at different times. He at once jumped to the conclusion that this was the underlying cause of general nerv-

ous breakdown, and referred her to a surgeon. The surgeon advised operation. Several weeks after having referred this patient to this specialist, her son came into my office and said to me, "Mother feels hurt, that you never came to see her at the hospital." I said, "Hospital, when was she in the hospital?" He said, "Didn't you know that she was operated upon?" I said, "I certainly did not know." I immediately looked into the matter and found the conditions as I have stated. Now, it does not seem that such men have much consideration for the general practitioner. Another, a case, a patient of a friend of mine, in which the child developed an abrupt, acute attack of appendicitis, following an influenza cold. The surgeon saw this child, advised operation immediately. The child was taken to the hospital, operated upon. Of course, the family physician was, at least, permitted to stand by and see the operation, but was not given to feel that he was necessary further in the case. However, as this child had had some serious attacks of illness during its early life, the parents were anxious that he should be constantly in touch with the case, so he made it his business to go to the hospital twice a day to see the child. About the morning of the second day following the operation the mother telephoned to him and said that the child did not seem so well, that she had developed some fever, that the doctor had seen her and the surgeon was under the impression that she was developing a sepsis, stating that in all probability there had been some escape of poison from the appendix previous to the operation. He saw this child about noon, she then had a temperature of 103°, rather rapid pulse, flushed face and rapid respiration. He examined the case rather superficially, as the surgeon was not about, and he hesitated to subject the patient to any special exertion, without his consent. He went back in the evening and made an appointment with the surgeon's assistant, to meet him at the hospital, which he did, and as he did not object to his moving the patient, he had a better opportunity to thoroughly examine her, which he did. He then asked the assistant to listen for himself to this child's lung, which he did, and he said, "Doctor, I guess this is your job." Of course, it was. The child was already developing a consolidation of the base of the lung and a pneumonia, post-grippe pneumonia, not a sepsis. There did not develop a single complication with the surgical operation, but this child had a pretty severe attack of pneumonia. Now,

the question in my mind is, would the surgeon have discovered this pneumonia in time to possibly prevent a fatal issue. I question it, after, the solution of the whole question of the relation of the surgeon or specialist to the general practitioner is simply this in a few words. The surgeon should, in every private operation, associate with him the family physician. He should also impress the family in every case that the general practitioner is necessary for that patient's recovery. If you, the surgeon, will simply impress the family that the general practitioner is necessary in the case, as has already the general practitioner impressed the family that you, the surgeon, are a necessity, then he will be acting fair to each other, and particularly for the patient's protection and family's comfort. I say comfort, as it is oftentimes a comfort to the family to have the family doctor in constant touch with the case and not to be turned over to strangers. Then, when the general practitioner renders a bill to such a family for his attention to this patient during the course of the operation they will feel that he is entitled to his compensation, but when the surgeon or specialist makes that family feel that the general practitioner is of no value and unnecessary in the case he operates, of course, the patient will object to a bill from him, consequently, he gets no compensation. I feel, that the surgeon who treats the general practitioner upon a square basis, not only square, but level and plumb, is not only going to get all his work, but is go-to have fewer deaths. Again, the question of cost of an operation should be a business proposition, and that the door be not left open for the surgeon to make such charge as he may choose. There should be a definite understanding before the operation is begun, as to just what that patient will be expected to pay. This will be an advantage, first, to the surgeon, as he will know just what he is going to receive for the operation, and an advantage to the general practitioner, as the family will not look upon him as being a party to the surgeon's sometimes exorbitant bill. I understand that there are some surgeons who are giving general practitioners from thirty-three to fifty per cent. of the cost of the operation. This I consider is absolutely wrong, but I do consider that the general practitioner for his attention during all such cases is entitled to a reasonable fee, and it should be collected directly by him. The general public knows what our charges are. With the specialists, it is always an unknown

quantity. When you, a surgeon, go into a department store or any other place to purchase an overcoat or suit of clothes, you want to know just what it is going to cost before you purchase it. You do not tell them to send it home and send the bill. I know of a case, in which a surgeon operated on a person for an irreducible hernia, an operation that almost any surgeon would do for from one to two hundred dollars. In this case, there was no understanding as to the cost and he rendered her a bill for fifteen hundred dollars, when, in reality, from one to two hundred dollars was about all this patient could afford to pay for the operation; but had she carried out my suggestion, and had made a definite business arrangement for the cost of this operation, previous to it being done, this same surgeon has done, and is doing to-day, and, no doubt, would have gladly done her operation for two hundred dollars. In fact, not only myself, but a number of other men, whom I have come in contact with have decided in the future that this business arrangement must be made previous to any operations done for us or our patients. As to the after-treatment of operations there are many general practitioners who are able to do this work, and, I might say, in many cases far more able than the assistants that some of such men have connected with them. In fact, the larger per cent. of my operations that are being done by a surgeon, have been cared for by me. Some of these, in which the patient never saw a surgeon. He was satisfied with my diagnosis, the patient anæsthetized and brought to the operating room, operated upon, and the surgeon having gone home before the patient had recovered from the anæsthetic, and he never had occasion to see the patient afterwards, and, I am proud to say, both for the surgeon and myself, that all of these cases have gotten well, and, as I stated in the beginning of the paper, "What is going to become of the general practitioner?" Four conditions must be rectified for the protection of the general practitioner's future,—namely, lodge doctor, professional beats, and grafting specialists and hospital abuse.

You must all recognize that already,
That we, the general practitioners, hear the slow and solemn steps
of Doom
Approaching through the corridors of Time.
They echo through our dreams.

MUSCULAR HYPERTONUS OF THE ERECTOR SPINAE GROUP. ITS CLINICAL SIGNIFICANCE.

E. L. NESBIT, M. D., BRYN MAWR.

In presenting this paper before the society, I know that it does not give the final word upon the subject, but I hope that it may prove to be sufficiently suggestive to merit your examination and criticism.

During the past eighteen months I have been confronted by this physical sign repeatedly. I take pleasure in sharing with you some of the perplexities it has furnished me.

In Sartor Resartus, Carlyle has said,—"Happy is he who can see through the clothes of a man—the fleshy and woolen, the official bank-paper and State-paper clothes—into the man himself and discern, it may be in this or the other dread potentate, a more or less defective digestive apparatus, and, yet, a venerable, inscrutinable mystery in the meanest tinker who sees through eyes."

As, if in accord with this profound observation, Prof. Wm. H. Bigler, discussing the utter dependence of a human being upon the integrity of his central nervous system, closed an interesting lecture in physiology with this characteristically suggestive statement,—"No monk or friar ever lived in greater seclusion than your ego and mine."

In the endeavor to find or force our way into the mysteries of our fellow-man's sufferings, we may well stand astounded before the task when we contemplate that the accuracy of our knowledge must depend upon the integrity of not one, but two central nervous systems. This is why I have been pleased to think of physical diagnosis as an art, made up of many and difficult problems in probabilities, often in possibilities, and rarely or never in certainties. Nevertheless, the task lies before us.

I have been greatly interested in attempting to work out the anatomical and physiological basis for a physical condition which I shall be pleased to call in this paper Arnold's Sign, in deference to the man who first called the attention of the profession to it, and to determine what clinical significance it may have as a physical sign.

Since my attention was first called to it I have found it present by repeated examinations in two cases of epileptiform convulsions, two of arthritis deformans, two of sub-acute spinal meningitis, one of

asthma (probably cardiac), two of pulmonary tuberculosis and four of neurasthenia. The most instructive cases have been one of epi- and two neurasthenias.

If we instruct the patient to lie upon one side with thighs, trunk and head slightly flexed and comfortably relaxed, the posture assumed will favor a complete relaxation of all of the muscles of the erector spinae group throughout the length of the spinal column.

Standing at the side of the table toward which the patient faces, we place the tips of the fingers of both hands gently, but firmly, over the interspinous notches of the vertebral column, and draw the fingers slowly and steadily across the course of the muscular fibres.

In a musculature of normal tone, as in a healthy child, we encounter only the natural resistance of relaxed muscular bodies, and without any local soreness or tenderness.

More often, however, we may feel one or more muscular bundles, varying in size and tension, which seem to stand apart from the rest of the muscle-like tense whip-cords. This sense of resistance, or hypertonus, may be bilateral and co-extensive with the vertebral column, or it may be unilateral and unequally distributed over local areas.

To what extent may we believe that circular disturbances in the internal organs are reflected by the spinal cord in the muscles and superficial tissues of the back?

Arnold believed these contractions of muscle bundles to be essentially vaso-motor phenomena, and there is much to bear out his conclusions. He differentiates stages of congestion, infiltration, induration hypertrophic and atrophic, according to the acuteness or chronicity of the operating causes.

It occurred to me that great assistance in tracing the mechanism involved might be derived from an anatomical rule which I learned some years ago while a student in the laboratory of that master-student of the human body, Rufus B. Weaver,—namely, "a nerve trunk or trunks which supplies a muscle or group of muscles, will supply the skin and fascia over that muscle or muscles, and the same at the points of insertion of that muscle or set of muscles; in addition, the same trunks supply the joint or joints moved by that muscle or muscles."

We know that a given segment of the cord supplying the mus-

cles with motor impulses receives its sensory stimuli over the same posterior primary division that supplies its sympathetic ganglia. It will be well to recall that "all the vaso-motor nerves originate in the cerebro-spinal axis, and leaving the cord by the anterior roots, as fine medulated fibres, proceed to the lateral series of ganglia, where they lose their myeline sheaths before being distributed to their vascular areas."

"The vaso-motor nerves appear chiefly in the roots of the dorsal spinal nerves. The vaso-dilator nerves, on the other hand, originate more particularly from the cranio-cervical and sacral regions." The researches of Langley have revealed a very definite distribution of the vaso-constrictor fibres especially, originating from individual segments of the cord.

If we can conceive of the so-called central and sympathetic nervous systems as being in reality identical, instead of entirely separate, there is little difficulty in proving a compensatory relationship between the organs supplied from a definite segment of the cord and the erector spinae muscles overlying that segment.

The limits of this paper will not permit detailed tracing of the embryology of the subject, but in it, as well as in the experimental evidence gained by the researches of Head of London, there is much to confirm the beliefs that structurally and functionally the two systems are one.

"It is quite important, in the beginning, to obtain a clear, general conception of the paths taken by the constrictor fibres from their origin in the spinal cord to their termination, on the one hand, in the vessels of the skin; on the other, in the vessels of the abdominal and pelvic organs."

In discussing Head's investigations of the relation between definite zones of cutaneous hyperalgesia and diseases of the deeper organs, Sahli makes this comment,—"Probably the affected organs are also supplied by the same nerves. Thus far no satisfactory anatomic explanation has been able to correlate the localizations of zones of the two definite diseases."

I believe that an anatomic explanation is well within the application of Weaver's rule and that Arnold's sign has the same significance as Head's hyperalgesic zones of the skin, because dependent upon the same nervous distribution.

In conclusion I could offer this sequence to explain the mechanism of muscular hypertonus of the erector spinae group in diseases of the deeper organs.

In acute affection, visceral engorgement (vaso-dilatation), with increased afferent irritability, would produce a relative nuclear anæmia in the cord (compensatory vaso-constriction of the vessels supplying meninges and cord) with lymphatic exudate into the cord and canal and cutaneous vaso-constriction over the zone supplied by the segments involved. This cutaneous vaso-constriction, if continued, would result in local hyperalgesia and hypertonus of the underlying muscle bundles.

In chronic affections, through reflex fatigue, cutaneous sensibility is diminished, muscular hypertonus results in infiltration and hyperplasia, which, in turn, gives way to induration and atrophy and consequent relaxation of muscles and ligaments, malnutrition and partial sub-luxation of spinal segments and more or less constant dull aching throughout the area involved.

In a case of sub-acute neurasthenia under observation over six weeks, which was characterized by dilated pupils, cold extremities, dermographism, constant backache, increased knee-kicks, arterial hypertension and insomnia, I repeatedly found muscular hypertonus and cutaneous hyperalgesia bilaterally along the vertebral column, which gradually subsided with a return of arterial tension and knee reflex to normal.

The secondary effects I have observed in one case of epileptiform convulsions of twenty years' duration and in two cases of arthritis deformans.

May we not find in Arnold's a physical sign quite as useful as the one Kernig described?

BIBLIOGRAPHY.

Carlyle—Sartor Resartus.
Bigler—Notes on Physiology.
Arnold—In the International Medical Magazine.
Gray—Human Anatomy.
Schultze-Stewart—Topographical and Applied Anatomy.
Krehl—Clinical Pathology.
Herter—Diagnosis of Nervous Diseases.

Weaver—Demonstrations in Anatomy. Hahnemann Medical College (Philadelphia).

Howell—Text-Book of Physiology.

DISCUSSION.

Dr. G. H. Wills: I feel that Dr. Nesbit's paper is difficult to discuss because many of the ideas are entirely new. I believe that he has presented these ideas to serve as an incentive for further investigation. The osteopaths have devoted a great deal of attention to this subject, and, while their view, no doubt, is an exaggerated one, it is important, nevertheless. They have shown that it is a condition worthy of consideration by the clinicians.

THE PSYCHIC REALM.

RICHARD E. TOMLIN, M. D., PHILADELPHIA.

In the preparation of this paper the writer is aware of the fact that there are members of this Society who are, as yet, unfamiliar, or, perhaps, not greatly interested in the subjects of Psychology and Psychic Science. That these are subjects with which every intelligent medical man should be conversant, needs no defense. During the last decade every man making any pretense to scientific attainment has, at least, been interested to some degree. No statement has been made by the writer, but what is now accepted by all the great scientists and philosophers throughout the world. This essay is only intended as an introductory or prefatory sketch of the latest and best thoughts of the greatest writers up to date. Facts, principles and laws must always precede the practical demonstration of anything. A law is something greater than a fact. It stands out immutable and eternal, surviving the wreck of change and pointing the way to the realm of fixed facts and truths. All true scientists live in an attitude of humility, keeping in mind the instability of "scientific" conclusions and inferences, touching all matters that lie outside of sensible phenomena. The practical nature and value is easily seen when once the subject is comprehended.

Some of the eminent writers reviewed, quoted, etc., are as follows: Flammarion (Urania, and other scientific articles), Shaftesbury

(Unseen Powers, Life Electricity, and other works), James (Psychology), Hudson, Schofield, Mauro, Wells (Boston University), J. M. Baldwin (Princeton), Col. G. W. Warder (Invisible Light, etc., etc.), Lord Kelvin, Sir Oliver Lodge, Hereward Carrington, Sir Wm. Crookes, Wm. T. Stead (Ed.), Prof. Charles Ricket, MacDonald, Dr. J. Maxwell (Bordeaux), and others.

Investigation never explained anything away worth retaining. Science is never the enemy of truth. If it breaks up the formal, and tears down the superstitious, it is only that it may reveal facts that were before concealed.

Prof. J. M. Baldwin says: Psychology is the science of psychic phenomena of all sorts whatever. Education is a process of the development of personality under the best attainable conditions; and further, psychology is the science which aims to determine the nature of such personality in its varied stages of growth, and the conditions under which its full development may be most healthfully and sturdily nourished. Psychology and psychic science should have their places as factors in liberal collegiate culture in both of the functions which a great branch of learning serves, *i. e.*, undergraduate discipline and instruction, and post-graduate research discipline. It should mould and inform educational theory by affording a view of mind and body in their united growth and independence. It is a natural science.

Whatever is knowable is physical; and whatever is physical exists in facts.

Nature is the maker of facts; humanity is the maker of mysteries.

Facts beget facts; and mysteries beget mysteries.

Facts illumine life; mysteries enshroud life.

There is a purpose in everything; nothing is in vain; nothing is useless; nothing is wasted; nothing happens by chance.

Progress is the highest purpose of nature.

Humanity is the willing or unwilling instrument of progress.

Education is not knowledge, and does not produce wisdom because it does not establish facts.

Humanity is hemmed in by the Unknown, and it will not break down its prison walls until it has adopted other methods of acquiring knowledge.

No one knows what thought is, what mind is, what electricity is,

what gravity is, what light is, or why life has been placed on this planet. Theories and beliefs are abundant, but they are the creation of the human mind and not the facts of nature.

General humanity possesses the five senses,—sight, hearing, smell, taste, and touch.

The last is the greatest, for it alone accomplishes the work of the world; it is the executive sense.

However important the habit of reasoning may seem, it is not the key to facts. Logic has for centuries been regarded as a system of trickery; wherever there is a logical process there is a fallacy in waiting. You cannot prove a fact by the process of reasoning. You may suggest it, or name the probability, and sometimes predict the possible and impossible.

If the fact shall ever be established beyond all doubt that there is a sixth sense, then the solution may be found. Of late years there has been a strong tendency to believe in a sixth sense; and it has been described as the power to reach facts without the use of any of the five senses. It is called the sub-conscious faculty.

It is defined as a faculty that exists without consciousness; and is regarded by some as the state of the soul. One of two things is true; either that there is, or there is not, a sixth sense.

If it exists and is knowable, it is part of the undeveloped power of humanity. Whatever is knowable is physical, and whatever is physical exists in fact; the sixth sense, therefore, must be a physical fact.

If it is not knowable no human being has a right to parade it under the banner of an occult mystery. The so-called occult powers are either not knowable or they are physical facts.

Whatever is knowable can be discovered and proved; but never by occult methods. More than twenty thousand books have been published on occult subjects; not one of them contains a single tangible fact, it is all left to speculation. It is grand to be practical, but ridiculous to be a speculator.

Years ago it was the custom of the conservative person to say, "I do not know" to all inquiries bearing upon the relationship of the supernatural with the natural. For the past fifty years or more it has been regarded as a mark of wisdom to refrain from having a fixed opinion in these matters; and the token of a careless thinker to even suggest a solution of the psychic phenomena.

Societies have been formed by men, who, at the start, were unanimous in their belief that all claims of genuine psychic demonstrations are either fraudulent, or made in honest mistake. The remarkable fact about such men is their subsequent conversion to a belief in the existence of telepathy, and soul existence; but not in spiritualism or occultism.

It is a known fact that in more than two thousand cases, men of the highest learning and intelligence have passed from a state of denial of these things into a clearly established belief in them. A learned writer has said that the sub-conscious faculty is the mind of the soul, and that it is active after the soul leaves the body. Everywhere there is abundant proof that telepathy is a universal and omnipresent power.

Twenty years ago it had become apparent that every orb in the sky was within lines of communication with all other orbs, and that a chain-work of influence held them together as one community. This influence was suspected by Shaftesbury to be magnetic, and belonged to the same class of powers as personal magnetism and universal magnetism.

It was known that our solar system was held together by magnetc energy; the moon to the earth, the satellites to the planets, and the planets to the sun. It was also known that our solar system was chained to the star worlds by the same influence.

He further states, with telepathy, the tongue of psychic communication, and magnetism, the chain that brings the whole universe together into one close community, it was a comparatively easy matter to evolve the laws and facts as believed and accepted by the Psychic Society.

Shaftesbury says (Unseen Powers):

1. The universe is all physical; or it is part physical and part something else.

2. As the proofs are abundant that something besides the physical exists, that which is not physical is necessarily psychic.

3. A human being is born of earth and his five senses are built of earth being developed by his earthly experiences.

4. He has only five senses with which to acquire knowledge unless he is able to derive information from some other source.

5. As no other source exists outside the physical except the psy-

chic, it is necessary for man to search with the latter in order to know more than his physical senses can teach him.

6. The conditions that hold unseen sway over each human life, are all psychic, for the reason that they are not physical.

7. Any attempt to secure knowledge of such conditions by the aid of the physical senses will always lead to mystery, error and superstition.

8. If knowledge cannot be obtained by the aid of psychic agencies it will never come, as far as such conditions are concerned.

9. Conclusive proof having been secured that the psychic senses occasionally break through the physical senses, much valuable information is now at hand from this source.

10. All other methods of information are confined wholly within the realm of the psychic world.

11. It, therefore, follows that there are two divisions to the study of the unseen powers that surround human life; one is devoted to a consideration of the proofs furnished by physical glimpses, and the other the direct evidence furnished by psychic processes.

Facts are everything.

Facts, laws, and principles make up the entire true philosophy of life. Nature is the Mother of the human race. In the government of the world she sets up laws, forces and principles that never vary until humanity is in danger; and she then makes every exception necessary to provide safety for the race. More than this, she shows, by countless evidences of special design that she has a purpose in bringing people upon the earth. An intelligent thoughtfulness is present in all her operations; and that humanity is the object of her special design is readily discerned by the thoughtful mind.

As the sense of sight is founded on ether waves, and as psychic processes are wholly originated in such waves, it is natural that the vision should be the agency by which the psychic should break through.

There is no reliable evidence of a manifestation occurring by the use of sound or touch. Touch is the action of substance. Sound is the action of ether waves.

Thought is known also to be the action of the waves of ether.

Sub-conscious thought belongs to the psychic mind.

The sub-conscious mind never sleeps.

While the ordinary mind is active this strange mentality will not

assert itself, and its owner knows nothing of it, or the things it knows. In sleep this faculty is alert, but its rambles are all unknown to the conscious mind, unless there is a dream, and sometimes this is so vivid that the two minds come together.

As life in the body is both physical and psychic, it follows that the predominance of one subdues the other, and the subjection of one permits the other to have greater sway. It also follows that, when one is neglected, the other will seek to take its place.

Examples of this tendency are found in the lives of those men who have had frail bodies, and whose psychic natures have been more keen and active in consequence. The knowledge that instinct furnishes is most amazing in its volume and power. The things that it tells are draughts from the psychic world.

A person who has not studied the habits of the animals will be surprised at the many acts of a superior intelligence they perform, outwitting man, both in skill and cunning. As they have no one to teach them, it must follow that they are given knowledge by a psychic power, which, for convenience is called instinct.

Some well known psychic laws:

Nature is a conscious personality, knowing humanity in its smallest and greatest needs.

The product of Nature is humanity, with its physical and psychic possibilities.

Nothing is lost, wasted, or in vain.

Ether fills all occupied space in the sky.

Light is an impulse that vibrates the ether throughout all the occupied realms of the sky.

A psychic impulse travels faster than a wave of light.

Light is material.

Every world in the sky is the abode of created beings.

Beautiful worlds are the abodes and visiting places of the psychic body.

Heaven includes all the universe beyond the earth.

The lower the grade of telepathy the more obscure it is.

Through physical telepathy it is possible to find the way to psychic magnetism; and up to the grand heights of universal magnetism (power).

Through universal magnetism it is possible to find the way to psychic telepathy; and here the control is between forms of psychic life

everywhere, and the knowledge that this exalted telepathy brings is of psychic power everywhere. Magnetism is power; physical magnetism is power over the physical mind and the physical body, physical telepathy is knowledge of the physical body and the physical mind; universal magnetism is power over the psychic mind and psychic life; and psychic telepathy is knowledge of such life and mind.

Physical mind and life perish.

Psychic mind and life are deathless.

Keen and shrewd as nature is she closes out more of the physical dregs of other minds than she does of the things of value.

To each man and woman is open the realms of true psychic telepathy and then there is access to heaven and all the worlds of the universe, which may be entered in thought while we dwell on earth.

The psychic mind may come into the possession of knowledge that surpasses the grandest dreams of the golden future, by following out the laws of this new science.

All life is divided into two parts, physical and psychic.

There are two kinds of interpretation, the physical and the psychic.

The physical mind cannot interpret the thoughts of the psychic mind.

In the psychic world all thoughts, feelings, and purposes are an open book.

The psychic mind knows all the thoughts of the physical mind.

There are two kinds of death: the physical and the psychic.

The psychic life begins on earth.

As the psychic life is included in earthly existence, it can be entered only during life on earth.

It is impossible for the soul in the psychic world to communicate with human beings.

The psychic body once free, leaves earth, never to know it again.

Every earthly life is a complete existence with the full possibilities of immortality.

Every world in the sky is made of the same material of which the earth is composed.

ANALOGIES FROM THE REALM OF PHYSICS.

All matter and motion are but the day dreams of universal attraction, electro-magnetism and chemical affinities. So matter in its

finest atomic form clings to these forces, as thought clings to the man, as the dream clings to the dreamer, as the created clings to the creator.

The finely balanced magnetic needle fixes its lines of rest under the electric currents of guidance that encircle the earth as a vast magnet. The earth receives its electric currents of guidance from the greater magnet, the sun, and the sun from space or greater systems of magnetic constellations, controls all matter like a charm. And so from suns to atoms and from atoms to suns, this potential electric energy possesses the universe like a dream.

The omnipresent creator holds the revolving earth, the planets and all stellar systems of infinite space in the grasp of his boundless power and intelligence by means of this subtle, invisible and potential agency, electricity.

There is but one spirit, the creator of all things, the father of all spirits, in whom we live, move and have our being. All souls are atoms of the one spirit in varied forms and degrees of intelligence, and each is aspiring, as it has opportunity, to infinite knowledge and happiness, and, in the ultimate end, will attain to both.

Psychic life, or spirit, which is supposed to be beyond the realm of positive science, is the eternal vital controlling force back of all matter and all electric forces and the greatest factor in the science and philosophy of all things. Spirit is known by its phenomena or effects as well as electricity and magnetism, and should have a place in science by the side of invisible, imponderable matter, and the invisible potential forces of electricity. The spiritual, or psychic, is the foundation of the real, the life seat of all material organisms, as electricity is the individual energy of other growth and development.

Science should accept all truth, physical and psychic. It should not run to extremes and declare that because matter is tangible and its phenomena observable, there is nothing behind or beyond it, or because that spirit moves or controls matter that, therefore, matter is a delusion of the mind. To do one is to deny the proof of the senses, to do the other is to ignore our conscious perception and intelligent existence.

Man, in his physical structure, is the most perfect electrical machine of all animal existence on earth that God has created.

We see all things by the help of light, but light itself we cannot see. We feel the comfort and warmth of heat, but heat we cannot

see. We feel the power and force of electricity, but it we cannot see. These belong to invisible matter and invisible forces. What, says the dogmatic materialists, is there invisible matter? Certainly there is. There is a boundless universe of invisible matter in the air, sky, earth and sea, and through all the viewless void of space, as invisible as spirit, as intangible as soul, as imperceptible as ether, and with its electric forces, as potential as omnipotence.

We cannot weigh, light, heat, force, electricity, etheric atoms, magnetic attraction and repulsion in balances. We cannot measure their form or dimensions. We cannot grasp their body or substance. We cannot hear the sound of their coming and going.

A ray of light is so swift that it can go around the earth a thousand times while I am pronouncing a word of two syllables. The mightiest telescope, piercing the awful depths of space, can find no bounds beyond which light has not travelled.

As there is invisible matter, invisible electricity and magnetism, and as all the forces and energies of nature are invisible and mysterious, we should not discredit physical and psychic power as potentials on that account.

The search-light of scientific inquiry is penetrating the mystery of soul, of psychic life, and bringing out the spiritual entities of existence. The fairy tale of yesterday is the scientific discovery of today. Each decade knowledge turns and gazes back in astonishment at the mountain of dogmatic ignorance she has climbed.

What is known as sound has no existence in itself, it is merely the creation of the sensitive nerves of the brain. The basis of all sound is air. The air may be still, or it may be moving, but still air or moving air of itself does not furnish the basis of sound. Sound is a vibration of the molecules of any mass. Sound makes no noise unless these vibrations act upon the nerve centers of the brain, the noise which these make is not actual, there must be a function in the nerves of the brain that translates or interprets the vibrations into what the mind accepts as sound. Let the drum of the ear be lacking and the loudest sounds will be dead silence. Let the nerve of hearing be paralyzed and stillness will prevail even in the downward rush of Niagara. Let the brain cell be deficient and the explosion of cannon or the loudest peal of thunder will have no existence to the individual.

Kepler's discovery of the elliptical motion of the planets rested

upon accumulated observations of the actual positions of the heavenly bodies during centuries; it would have been impossible without them. The laws of chemical synthesis rest upon observed facts of invariable combinations, and we would consider the man a lunatic who attempted for reasons of convenience or prejudice, to convince himself or others that the elements should combine otherwise.

So when the psychologist asks that our judgment be suspended in the interest of unprejudiced research, his position is only that of the physicist who will not assert categorically that the physical forces are one, or that the geographer will not declare that all earthquakes are due to the cooling of the globe.

On account of the limited time allowed for the reading of an essay, the writer has hardly touched some points which he hoped might prove interesting, and an inviting field of discussion. Within the scope of psychic matters lies a vast realm of unexplored wealth. Careful investigation into which will bring rich returns. There is no more inviting field, nor is there a field with which the practicing physician should be more familiar than that of psychology and psychic matters in general. In proportion to the intelligence of medical men in these subjects will depend in a great measure their ultimate success. The profession of medicine is at last awakening to the fact that the public have for some time been accusing themselves of the belief that their faith in drugs has been sadly misplaced, and that there are many other means independent of drug action that can be successfully used for the relief and cure of numbers of ailments with which the human body is afflicted.

DISCUSSION.

Dr. T. H. Carmichael: This paper shows a careful consideration and a careful presentation. I am sorry I was not able to present the practical application of the truths of this paper. The psychic mind of the individual is the individual. In Homœopathy we treat the individual and not the disease. The mental symptoms will always be the prominent symptoms in the treatment of the patient. The results that we see from the psychic element shows its great value in the field of medicine. I hope that the doctor will at some future time present the practical side of this question.

Dr. R. E. Tomlin: This subject, while a deep one, is as simple as A, B, C.

LIGHT MODALITIES AS ADJUVANTS TO THE INDICATED REMEDY.

ARTHUR W. YALE, M. D., PHILADELPHIA.

Since the early days of medicine, when Æsculapius prescribed for his clientele, there has been an important problem awaiting satisfactory solution. For centuries the long suffering world has put out its tongue, had its pulse felt, and taken in faith, hope, and too often, alas! as charity, a conglomeration of drugs. Years have witnessed modifications of these medicaments, various schools have, and still are, influencing each other, and the old, heroic remedies are being relegated to the shelf, while milder ones are taking their place.

But should the much enduring world, which has swallowed tonics, emetics, laxatives, purgatives and alterative, venture to ask: "How do these remedies act? How do they contrive to affect the diseased organs?" Æsculapius and his sons would answer evasively, or else admit that there were various theories, but no positive certainties.

The Chinese physician administers powdered millstone to a patient complaining of stomachache. "Of course," he reasons with child-like directness, "millstone is heavier than the pain, therefore it will force the pain down and out of the body." If a patient is weak nothing is more logical than to feed him with the pulverized bones of the tiger. The tiger is a strong animal, his strength lies in his bones, therefore the powdered bones will reach the feeble bones of the patient and strength result.

Unfortunately, we cannot settle mooted questions as easily as our brethren of the Antipodes, and several theories have been advanced as to how the indicated remedy acts. Since the days of Hahnemann the homœopathic slogan has been "Similia Similibus Curantur," and "the indicated remedy and nothing but the indicated remedy." But just how does this indicated remedy, when administered, produce its results?

Some investigators hold to the theory that the remedy has a selective action. In other words, it is received into the stomach, absorbed there, and taken into the blood current, thence to the various organs. Now the remedy, claim these theorists, has an affinity for certain organs, selecting the one for which it has an affinity, and acting thereon.

But far be it from the practitioner of medicine to countenance affinities in theories or practice. Have not our daily papers chronicled the disastrous termination of a conspicuous case, in which the one who was one day the "mate of the soul," the following day required for her spiritual welfare, the chastening sole of the slipper? And "love who laughs at locksmiths" looked glum behind the bars of a county jail.

Furthermore, this selective theory would seem to credit a drug with almost human intelligence, in selecting the organ in need of its action, which to the writer would seem scarcely logical. The theory which commends itself to the writer as being most plausible of those advanced, is as follows:

The remedy, taken into the healthy human organism, is absorbed, carried to the brain, where it irritates particular nerve cells, setting up vibrations along nerve trunks. Thus are produced certain phenomena, which, taken in their totality, we term provings.

When a diseased condition manifests itself, vibrations are set up from the terminal filaments along certain nerve trunks to certain centers, and we have as a result, symptoms. When these pathological conditions are present, the similimum setting up similar vibrations from the centres equalizes or neutralizes the vibrations caused by disease.

This theory would commend itself as a logical solution of the problem. The illustration of a single drug may elucidate the foregoing explanation. Aconite, for instance, sets up vibrations along the trigeminal nerve, producing symptoms simulating facial neuralgia, the well known restlessness, redness and sharp, lancinating pains. In the same manner facial neuralgia will cause similar vibrations to be carried along the nerve trunk back to the centre. Therefore, when facial neuralgia is irritating the terminals and sending vibrations back to the centre, Aconite, acting upon the centre, will send similar vibrations in an opposite direction, and these two sets of vibrations, meeting, will neutralize each other, and thus afford relief to the patient. This theory is far more rational than that of the drug, like a knight errant wandering through blood vessels all over the body seeking an affinity.

But turning from theory to actual practice, have not you, fellow practitioners, recognized the need of some adjuvant to the indicated remedy. Not a substitute for it but some agent which will accelerate

or facilitate its action. Take, for example, the illustration of Aconite already given. Experience has demonstrated beyond doubt that Aconite is the similimum for the type of facial neuralgia previously described. But to be frank, has there not been experienced difficulty in persuading the average patient when in agony, to await the action of the indicated remedy? He looks askance as the drops fall in the glass of water, and he is instructed to "take a teaspoonful every fifteen minutes." In his suffering he would more readily welcome the suggestion of a red hot iron applied to his cheek. He demands relief, and immediate relief, and to the practitioner is plainly apparent the need of allaying the pain, while the similimum does its work.

Hence the subject of the paper, light modalities adjuvants to the indicated remedy. With the introduction of the high candle power incandescent lamp in the treatment of diseased conditions, the medical profession frowned. "Such apparatus," they unitedly said, "is for the consultation-free, no cure no pay, friend of the people-men, but reputable physicians will have nothing to do with what savors so strongly of quackery."

But the incandescent light in the face of prejudice and opposition made its way, until its former opponents are now its champions. Before treating the subject of the actino-therapeutic lamp as an adjuvant, permit the writer to say a few words regarding the action of light on the human body. Light as a therapeutic agent is no new fad, for since the early days of medicine, the afflicted were wont to invoke the aid of the sun god, and sunshine has worked wonders in the treatment of diseased conditions. It has remained for this century, however, to give the world artificial suns, by which the patient can be more conveniently treated than by sunlight.

Light enters the tissues as radiant energy. Now chemistry teaches that light and heat both increase chemical activity, so it is not difficult to understand, that the light and heat entering the body, both increase the oxidizing power of the red cells, spur on the leucocytes and opsonins in their work of scavengering diseased tissues. Heat, however, renders the products of combustion remaining in the tissues more easily oxidized. Thus we perceive that the chemical affinity between the carbon products in the tissues, and the oxygen in the red cells is promoted, and when union is formed, it but remains for the venous channels to carry off the waste to be eliminated by the proper organs.

Furthermore, the light has an analgesic action more prompt than any opiate, and as long, if not longer, in the duration of its influence.

It has already been suggested that there is a need for controlling pain, and affording the indicated remedy opportunity to act. Take the case of Aconite, which has been twice mentioned. A patient is suffering intensely from facial neuralgia, presenting a typical Aconite picture. Obviously, Aconite is the remedy to be administered, since it will set up an irritation from the nerve centre along the trigeminal nerve and equalize the vibrations which are coming from an opposite direction.

Now if the actino-therapeutic light be applied to the face along the course of the trigeminal nerve, the analgesic action of the light will cause the pain to cease temporarily. The facial redness will be reduced at the same time, and the inflammation lessened by the increase in the capillary circulation, the increase in the leucocytes, and also in the action of the red cells, and the oxidizability of any waste products which may lie in the tissues.

Thus it will be seen that there remains less for the indicated remedy to accomplish, so that its action will be prompt and permanent. The patient receives immediate relief, which, unlike an opiate, does not interfere with the action of the similimum, but rather expedites it.

Again, we have all been called upon to witness the intense agony accompanying the passage of gall stones, which it is often necessary to allay by opiates. But if the actino-therapeutic lamp be applied, its radiant heat promptly relieves the pain, and in addition expands the duct, increasing the size of the lumen. Consequently, if the stone is not too large, the passage will be comparatively painless. Thus the congestion and irritation of the duct are relieved, and the indicated remedy, acting on the nerve centres, has an opportunity to afford permanent relief. So if the stone is passable, the intervention of the light permits the similimum to have free scope, without being hampered by the opiate.

Consider, also, salpingitis, with its congested and inflamed tubes, rendering the monthly passage of the ovum and the contraction of the uterus extremely painful. This is another instance in which the patient is apt to demand an opiate, and finds it difficult to await the action of the indicated remedy. But let the actino-therapeutic lamp

be applied, and the pain will be relieved, the capillary circulation increased, and the indicated remedy given an opportunity to act. Thus the patient will be afforded prompt relief, and the monthly drain upon the system from intense pain and blood loss, be saved. The similimum will have ample opportunity to do its work between the attacks, and will be aided in its task, because the vibrations set up by the diseased process will not be as great, hence more easily neutralized.

The actino-therapeutic lamp produces especially brilliant results in cases of nervous prostration, especially those which are accompanied by insomnia. If the rays of the lamp be passed up and down the spine the sympathetic nervous system will relax, and the patient fall into a restful, natural sleep. Thus the overwrought and exhausted nerve centres will be more amenable to the indicated remedy, which will be enabled to produce permanent effects.

The day has passed, fellow practitioners, when our patients will be satisfied with a bottle of pellets. The mind of the laity cannot associate a potent remedy with "Dissolve in a glass of water—take a teaspoonful every hour." If the patient is in pain prompt relief is demanded, and there is a certain psychic effect in seeing tangible measures taken for his aid.

At this point the comment may be made, "Exactly! The effect of the light is purely psychic, and nothing else. The patient is interested in the bright reflector and the intense light, and consequently expects that prompt alleviation will follow."

But the writer has had the experience of employing the light upon patients who are not merely doubting Thomases, but often scoffers, and who consented unwillingly to treatment, "which was all foolishness." He has had the satisfaction of seeing these same patients relieved of pain which had resisted all other measures. Then the properly selected remedy had opportunity to effect permanent results.

The most illustrious of medical lights, Samuel Hahnemann, said in his Organon (paragraph 148): "A medicine possessing the power or inclination to produce similar symptoms, or an artificial disease most similar to the natural disease to be cured, exerts its dynamic influence upon the morbidly disturbed vital force, and if it is administered in well proportioned dose, it will affect those parts of the organism where the natural disease is located, and will excite in them artificial disease, this by virtue of the great similitude and in-

creased intensity, will now occupy the place hitherto held by the natural morbid process."

Therefore, it is but logical to conclude that if the natural morbid process is temporarily suppressed by the action of the light, there will remain less for the indicated remedy to do, its work will be accomplished more speedily and a prompt and permanent cure more readily affected.

Shakespeare has said that it is possible to be "damned by faint praise." It is just as easy to "damn" (the word is Shakespearean) by overpraising. It is far from the writer's intention to exploit the lamp as a cure for all pain, and a sure preventive of the surgeon's knife. But light modalities employed with discretion will prove valuable adjuvants to the indicated remedy.

DISCUSSION.

Dr. H. M. Gay: I am inclined to think that you can get as much relief from a hot brick as from an incandescent lamp.

Dr. E. M. Gramm: There is no doubt but that we are on the threshold of remarkable successes in treatment by physico-therapeutic measures. The physician who thinks that there is only one way to cure disease is usually the one who will not investigate the later improvements in therapeutics. Forces and appliances are now used to assist internally administered remedies that are of value in many diseased conditions and materially shorten the time needed to bring about a cure in selected cases. I have for some time past used the various lamps, the incandescent, the naked arc (which produces light approaching very closely to sunlight), the ultra violet light (made by means of the arcing of electricity between iron terminals), and each one has a field of usefulness peculiar to itself. For instance, the ultra-violet rays mentioned have shown a remarkable ability to kill pus organisms. This was well shown in a case of sycosis that came under my care in a man who was not of a social position that he could give himself the care requisite to aid me in my efforts to cure him. It is well known that coccogenic sycosis is a very stubborn affection and that it has a great tendency to recur after being apparently cured. In the case mentioned I would have considered that cure brought about in a year by internal and externally applied remedies would be considered a successful treatment. To my

amazement the disease began to yield from the first treatment and in six weeks he was completely free from his malady and there has been no recurrence, although more than a year has elapsed since the last vestiges were to be seen.

Abdominal pain has been markedly relieved and cured by the high power incandescent lamp. Three cases come to my mind at this time to illustrate the beneficial effects of this form of energy. One was a case of ovaritis, another a case of pain located in the adhesions following an operation for appendicitis and the third was a case of salpingitis, probably due to an old gonorrhœa. In the last case the menses took about five days to establish the normal flow and the discharge was partly clotted. For the past four months the flow is normal from the start and no clots are to be seen. In all of the other cases the menstruation was normal. The result in the latter case does not seem to be accidental, for the menses appeared too early before commencing treatment, while now they come at the proper intervals. The light was used in these last three cases at the instance of other physicians.

I think we should keep ourselves in a receptive condition of mind in regard to all of the newer methods of treatment and not deny the efficacy of any of the forces of nature to beneficially affect the human race. However, it is well not to be guided by the statements of the agents, who try to sell a lamp. Many of them make assertions that are utterly false; for instance, it will be told by some that the ultra-violet rays are made by incandescent filaments enclosed in glass. It is a fact that ultra-violet rays cannot penetrate glass, so that any rays that are formed (and they undoubtedly are), remain within the bulb and do not reach the patient.

Dr. E. L. Nesbit: The evolution of this problem seems to lie largely within the comparatively unexplored realms of the sympathetic nervous system and the lymphatic circulation. The effects of mechanical stimuli have been quite definitely worked out by recent investigation. If we go back to the embryology of the cerebrospinal nervous system we will find a marked corelation existing between the epiblastic and hypoblastic tissues. This corelation persists throughout the adult life, probably accounting to a large degree for a compensatory relationship which exists between the skin on the one end and the mucous membrane on the other. To what ex-

tent the sympathetic nervous nature may be influenced at will to allow this compensatory relationship will depend largely upon future localization of afferent and efferent pathways involving the sympathetic ganglia. These pathways have been quite definitely traced out by Langley, but the afferent courses are not so clearly understood. For this reason the effects of mechanical stimuli on the surface cannot be predicted with the certainty to be desired, or, in fact, claimed by many enthusiasts in mechano-therapy. Nevertheless, we, as a profession, are confronted with the necessity of explaining away upon a rational anatomical and physiological basis how results do follow many of these methods so popular at present and yet apparently savoring of charlatanism.

REPORT OF THE

SECTION OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

Strabismus, by J. W. Stitzel, M. D.

The Work of the Medical and Non-Medical Refractionists Compared, by H. W. Champlin, M. D.

Sequelæ of Iritis, by G. H. Haas, M. D.

The General Practitioner and Cases Usually Referred to the Specialist, Particularly Those of the Nose and Throat, by H. A. Harrison, M. D.

Cholesteatoma in Relation to Chronic Middle Ear Suppuration, by G. W. Mackenzie, M. D.

STRABISMUS.

J. W. STITZEL, M. D., HOLLIDAYSBURG.

The subject of my paper might better be termed the non-operative treatment of strabismus. It is not my intention in presenting this subject to write a scientific paper on the subject of strabismus. But I want to bring before this society the subject of strabismus from a non-surgical or non-operative standpoint. My observations have led me to the conclusion that the general practitioner is now echoing the frequently repeated advice of ophthalmologists of international fame to wait until the child is eight or ten years old, until the normal time for developing a good fusion faculty, as demonstrated by more recent investigation, has passed before the case is seen by an oculist. If I can impress upon the general practitioners present the importance of early treatment in these cases, the object of my paper will be attained. I am sure I am voicing the sentiment of my brother oculists when I say that we see too many of these cases too late to get the best results. Parents are too frequently told by their family physician, in whom they should have the most implicit confidence, that there is no use in doing anything until the child has arrived at the school age at least, or, in other words, until they have been taught their letters, when they can be fitted with glasses. I am sorry to say we still have men in the profession who claim to be oculists, who cannot fit a case with glasses until the little patient is

taught the alphabet. This is particularly unfortunate, for statistics prove that the percentage of good results rapidly diminish after the sixth year. On the other hand, some of the laity are always ready to point out some one whom they know who "grew out of it," as they say, and while it is true we occasionally see a case of spontaneous cure of convergent strabismus, it usually occurs only after the squinting eye has become highly amblyopic.

Squint usually makes its appearance at the age at which the child first begins to be interested in near objects, as toys, pictures, books, etc., *i. e.*, about two years of age.

It may be at first periodic, but usually soon becomes permanent and confined to one eye. Its origin is often attributed by the laity to whooping cough, fright, irritation, or some object hanging close to the little patient, sucking the thumb, etc. While local changes in the ocular muscles, as congenital weakness, faulty insertion, or excessive development of one muscle, thus destroying the proper relation or muscular balance between the different ocular muscles, and an excessive quality of the anglegamma, all may act as causes in some isolated cases, yet the most frequent cause of convergent strabismus is hyperopia, or hypermetropia, and of divergent squint, is myopia.

Accommodation and convergence are two associated acts and always go together, in every patient with two eyes, who uses both eyes together, or at the same time. If we look at any object, our eyes immediately accommodate for that object and at the same time they converge, so that the outlines of the object fall upon corresponding parts of the retina in each eye; for if they fail to do so, we will see double, or have diplopia. Normally for each angle of convergence we employ an equal degree of accommodation.

Now, if the hypermatrope looks at some near object in order to see it clearly, he must make use of an excessive amount of accommodation, and at the same time he, of course, makes use of an excessive amount of convergence, and the result is that his eyes turn too much, the visual axes are not parallel and the images of the object looked at fall upon dissimilar portions of the retina and he sees double.

In order to overcome the diplopia produced, he ignores the retinal image in one eye and also allows it to turn in still more. Now let us trace the result, or effect of the destruction of binocular vision, or the use of two eyes together. If the patient develops monocular

squint or, in other words, only uses one eye, the other eye will become highly amblyopic from non-use.

On the other hand, if he develops an alternating squint, *i. e.*, allows one eye to turn one time and the other at another time, he will not develop reduced acuity of vision in either eye, but in either case he will have eliminated the associated movement of convergence or the act of fusion. It is just here where the average practitioner's knowledge of the subject is at fault, and where early recognition and treatment is of greatest importance.

You can readily understand how every day of delay in these cases, or, in other words, how every day's lack of use of the squinting eye, will increase the difficulty of restoring normal acuity of vision in the eye and the re-establishment of the fusion faculty. This is particularly of importance as these cases occur in young subjects who are growing rapidly, and whose retina is also being rapidly developed. It is a well known physiological fact that lack of use of any part of the human body, not only weakens the part, but causes a lack of development of the same, hence the vision in the eye not used fails rapidly. Of course, one of the first things to do in these cases, if hyperopia is present, and the trouble due in consequence to excessive accommodation, with its associated excessive convergence, is to instill atropine and paralyze the accommodation. I say atropine because we want to make sure the accommodation is paralyzed for some time, therefore, we make use of a thorough and long-acting cycloplegic as atropine.

Now, if the strabismus is due to hypermetropia, with its consequent excessive accommodation and convergence, you will find after the use of atropine, that the eye quits turning in if squint is of recent origin, for you have temporarily removed the cause, and if the little patient is under three or three and one-half years of age, you have done about all that can be done, unless the eye still persists in turning in in spite of the atropine. Then, in order to prevent the amblyopia, or loss of vision, that would necessarily develop from lack of use of the eye, you are justified in keeping the good eye covered or bandaged for a time each day, and thus make your little patient use the squinting eye until he or she arrives at the age of three or four years, and can be made to use glasses.

It has not been found practical to fit little patients with glasses previous to three and one-half or four years, as the child considers

them as playthings, and will not keep them on. You can readily understand from what I have just said, the importance of having patient carefully fitted with glasses, for it is absolutely necessary in these cases that patients be given the total correction. To remove the cause you must first remove all efforts of accommodation for distant vision.

You can also readily perceive the absurdity of the optician's claim to cure strabismus by the prescription of glasses. For atropine or some cycloplegic is absolutely necessary in these cases, to paralyze the accommodation, and calculate the total amount of the rafractive error, and it also must be used in order to make use of ophthalmoscopy or retinoscopy in your little patients, who do not know their letters. You can readily appreciate the absolute necessity for some objective method of refraction, as retinoscopy in these very small children. I have no patience with the oculist who tells his patrons to take their children home, and after they have been taught their letters to bring them back and he will fit them with glasses, and yet I know of several instances where it has been done right in my own community. Such men are very little better than the optician.

Taken for granted that our little subject has been carefully fitted with glasses, especially if the eyes have been squinting for some time, and the patient consequently only using one eye at a time, I think it is not hard to understand that the fitting of glasses will not alone suffice, we must teach our patient to use both eyes together, or, in other words, we must teach them fusion. The principal cause of strabismus, and the greatest obstacle to its cure being the absence of binocular vision, it is evident that anything which tends to re-establish the fusion of the retinal impression of the two eyes, constitutes one of the most valuable therapeutic agents in the treatment of this deformity. While the covering of the good eye compels the little patient to use the other eye, and helps to increase the acuity of vision in that eye, yet it does not teach fusion. Still more important than the training of one eye by itself are the exercises which bring into action both eyes simultaneously for the purpose of stimulating or re-establishing binocular vision. Right here many oculists fail to get good results because they have not completed their work, they have not recognized the fact that the little patient must be taught to use both eyes together. In other words, they must be taught fusion. This is done by the use of the

stereoscope, or by the aid of the amblyoscope. Both of these instruments make use of the same principle, that of compelling the patient to use both eyes in order to have a perfect picture. Both objects must be fused in order to have a complete picture. The principle of this method of treatment is nicely illustrated in the first series of pictures with the stereoscope. If you place the card with the bird and the cage in the stereoscope and look at it, you will see the bird in the cage, if you use both eyes and fuse properly. Now, if your little patients tell you that they only see the bird or the cage, you can readily tell which eye they are using by the object seen. Or, if on the other hand, they say the bird is outside of the cage, you can readily tell they are using both eyes. And you can also tell whether the eyes are turning in or out by the relation the bird sustains to the cage, or, in other words, on which side of the cage the bird appears. You can then move your card closer or farther from the eyes, until the bird is in the cage. You will notice series "A" is composed of two exactly similar pictures, but the bird is on one side of the cage in one picture, and on the opposite side in the other. This is done in order to place the larger object, or the cage, on the side of the amblyopic eye, thus rendering it more easy to be seen by the poorer eye, and thus more readily stimulating fusion. The same principle is carried out in the amblyoscope by having one of the pictures on the cards better illuminated than on the other, or good side. The charts shown are Dr. Wells' stereoscopic charts, and compose the best charts produced by Javal, Kroll, Dahlfield and Habe.

You will notice the first of the second series, or series "B," the men performing on the trapeze, is so made that instead of moving the card away from and closer to the eye, in order to fuse both pictures, they can be brought closer together, or separated, as may be desired. This series is composed of four cards and is intended for the purpose of measuring the fusion heterophoria. Series "C" is made up of pictures having something in common. In other words, patient must fuse both sides in order to have a complete picture of a word, letter or object.

You can readily see how this series could be ingeniously added to by almost any one. Series "D" is intended for the purpose of cultivating perspective.

Series 'E" is a set of smaller pictures on one card, similar to series "C." It has been found that patients who can fuse large

pictures as in series "C," and have a clear conception of perspective, suppress the image in one eye when looking at small test objects.

Series "F" is used for both diagnosis and training, if suppression exists.

The principal value of series "G" will be found in cultivating a refinement of the fusion faculty. You will notice the reading on the cards in this series grows smaller and smaller, and, of course, patient must have good vision in both eyes in order to fuse them.

Series "H" is intended to cultivate either ab or adduction, as the case may require. Of course, if one eye is highly amblyopic, patient will not be able to see object on that side, but as eyes are usually amblyopic from non-use, you can readily appreciate the importance of early treatment in these cases, in order to prevent amblyopia in the squinting eye. The amblyoscope is usually used by the oculist in his office, while the stereoscope is given to the parent to be used in exercising the eyes at home.

The amblyoscope is used in the same way as the stereoscope, and if you look at the cards you will see that they, like series "C" of the stereoscopic charts, are made up of concrete pictures, that is, both pictures have something in common, and both must be fused in order to have a complete picture. As, for example, the rat and the trap, the horse and the cart, the maid and the cow, etc. The amblyoscope is the Worth-Black amblyoscope. The instrument consists of two tubes, each provided with a mirror and joined together by a hinge. The tubes may be brought together to suit a convergence of sixty degrees, or separated to suit a divergence of thirty degrees.

The eye pieces have a focal distance equal to the distance of the reflected images, which consist of transparent pictures placed in the grooves at the end of the longer tube. Dr. Black has added to this instrument an additional movement in the vertical direction, in order to obtain fusion, when the lateral deviation is complicated by a vertical deviation. This vertical adjustment is effected by turning the milled head mounted on the shaft extending down from the hinge.

The little patient with his connection on is held on the oculist's knee, and the amblyoscope roughly adapted to his degree of deviation; it is then held before the child's eyes and a card showing a rat, for instance, is put in the tube before the child's fixing eye, and a trap before the child's squinting eye, and the child is told to look for the rat and trap.

At first he sees only the rat, but as the illumination is diminished on the side of the fixing eye, and increased on the side of the squinting eye, he loses sight of the rat and sees the trap. This is usually done with small electric lights placed before the celluloid cards, which are brought closer to and farther away from the cards, thus diminishing and increasing the illumination at will. The child is then allowed to grasp the instrument, and, assisted by the oculist, is taught to vary the angle of the instrument so that the rat goes in and out of the trap. All the other cards, as the bird and the cage, are used in the same way. The average child soon takes a keen interest in these exercises.

After a time the angle of the instrument can be greatly altered, either in convergence or divergence, while the eyes follow the object and maintain fusion of the pictures, until parallelism of the visual axes is finally obtained. The importance of early treatment in these cases is demonstrated by the statistics of Worth, the inventor of the amblyoscope. In several hundred cases treated, he found the younger the patient the greater the percentage of good results. On the other hand, the percentage of good results rapidly diminished after the sixth year. In fact, only a very small percentage were benefited after the sixth year. Of course, you all know tenotomies and advancements are frequently resorted to to correct strabismus. But at the present time, operations are usually done as a last resort.

Little can be accomplished by non-operative treatment of a long established convergent squint, if the patient is over ten years old. These cases require advancement of one or both external recti, and sometimes a tenotomy of an internus. Most operators recognize the value of post-operative training of the fusion faculty. This is important if one expects to establish a normal binocular use of the eyes.

In closing, let me say I feel sure as the profession at large get a more intelligent knowledge of the importance of early treatment, and early fusion training in these cases, tenotomies and advancements will only be occasionally necessary, and our patients will have two good eyes instead of one.

DISCUSSION.

Dr. H. W. Champlin: One of the simplest methods in these cases is to blind the good eye by the use of atropine. We can in-

crease our income a great deal by attention to nose and throat work. It is true that some try to do eye work who are not fully equipped. The retinoscope is often a great help in the treatment of these cases. The more we know about these cases the more apt are we to send for an expert. In difficult cases they should all be sent to the best expert.

Dr. J. W. Stitzel: I have several cases that are over ten years of age, two cases that I had where my results were more than I could expect. I have seen few cases that require operation under ten years of age. The squint in some cases was of five years' standing. Invariably in these cases I get good results, whereas in cases operated only shortening of the muscle seldom gives perfect results. If you get these cases under six years of age you will invariably get good results. We should bring about fusion in these cases and not teach the patients to use one eye. I do not mean that I could get results in all ages, but almost invariably do up to twelve years of age.

THE WORK OF THE MEDICAL AND NON-MEDICAL REFRACTIONISTS COMPARED.

H. W. CHAMPLIN, M. D., WALTERS' PARK.

When a man of more than ordinary intelligence thinks he is taking his eyes to one thoroughly competent to care for the same and gets lenses, ℞ + .25 D. s. o. u., when he needs, ℞ R. E. + 1.00 D. c. axis 85°; L. E. + 1.25 D. c. axis 115°; then the public must need assistance to distinguish between eye specialists and eye specialists. To consider the difference is the purpose of this paper, and to the general practitioner especially I hope to make it fairly interesting.

I was the non-medical specialist, not having used a cycloplegic in the case, when I prescribed, ℞ R. E. + .50 D. c. ax. 90°; L. E. + .62 D. c. ax. 90° for a patient of forty, the victim of sever headaches. Under a cycloplegic I prescribed a full correction, ℞ R. E. + 2.00 D. s. ⊃ + .25 D. c. ax. 90°; L. E. + 2.25 D. s. + .50 D. c. ax. 90°; which he wore with comfort.

A young lady having symptoms of eye strain accepted cylinders of + .25 and + .50 D. Had I not urged the use of a cycloplegic a latent hyperopia of + 2.25 D. and + 2.00 D. would have been

overlooked. I gave her, ℞ R. E. + 1.25 D. s. ⌒ + .25 D. c. ax. 90°; L. E. + 1.00 D. s. ⌒ + .50 D. c. ax. 90°.

Any good optician could have diagnosed the astigmatism in this case, but by no means at his command could he determine the latent hyperopia so important to correct. I hear it often said that opticans now have nstruments that make the use of cycloplegics unnecessary, and that oculists are behind the times in not knowing of and using them. If they have them I fail to learn of it by reading their journals, though the advertising pages seem to have some suggestions of them. The fogging system seems to be the only thing having authoritative endorsement. Every oculist knows how unreliable that is. Some opticians go through the form of using the retinoscope, but in that way they are handicapped in not being permitted to use a cycloplegic. We all know that the ophthalmometer, which, perhaps, all of us use, is entirely unreliable. Those familiar with it know that it would not decide between plus and minus cylinders in the following case:

A young lady had all of the symptoms of being myopic and her eyes accepted nothing but — 1.00 D. c. axis 180°. A cycloplege enabled me to prescribe, ℞ + 1.00 D. c. ax. 90°, o. u., which was worn with comfort and benefit.

A bell-boy could not read the figures on the annunciator. A — .50 D. c. axis 180°, o. u., gave him good vision. So confident was I that this was a proper correction I was nearly willing to risk it. On using a cycloplegic I found the need of ℞ R. E. + .50 D. s. ⌒ + .75 D. c. ax. 90°; L. E. + .75. D. s. ⌒ + .62 D. c. ax. 90°. I prescribed the cylinders which he wore with comfort and good vision.

Another pair of eyes recently refracted could not be coaxed to accept anything but minus cylinders. Under a cycloplegic, ℞ R. E. + 1.00 D. c. ax. 90°; L. E. + .75 D. c. ax. 90°; was prescribed.

Miss I.; age, 40; accepts only — .50 D. c. ax. 90°, o. u. Under a cycloplegic, ℞ + .50 D. s. ⌒ + .50 D. c. ax. 180°, o. u., is prescribed.

What does the refracting optician do in like cases? This is answered by a large number of cases in my records, a few of which I report:

A young lady, normal student, when informed that her eyes were the cause of some of her symptoms, said she would have to go home

to see Mr. Blank, whom I knew as a jeweler and optician. I advised against it, but she insisted that her parents would consent to nothing else. He had supplied her parents and sisters with glasses and all had been satisfactory. She made a journey of two hundred miles, the round trip, and came back with spectacles. She called on me at once and reported herself delighted, with a big D. The glasses being — .50 D. s. I told her she would derive no benefit from them. She said she had not had a headache since wearing them. Several weeks later she came in to see me and reported some trouble with the vision of one eye. On examining her lenses I found she was wearing plus sphero-cylinders. She explained by saying that after wearing the optician's glasses for a short time, she found her headaches worse than ever; knowing that I said her glasses were wrong, she went to another oculist, who endorsed my opinion and improved his opportunity to take the case. He gave her a proper correction and her vision was a little blurred thereby.

I refracted a normal student whose eyes accepted only minus lenses, but under use of a cycloplegic required R + .50 D. s. ⌒ + .25 D. c. axis 55° and 145°. A few years later she came into my office with the remnants of a pair of — .25 D. s. She explained that having broken one of my lenses she called on "Dr." Blank. He said she must have her lenses changed and gave her the — .25 D. s. mentioned. I refracted her again under a cycloplegic and again gave her plus sphero-cylinders.

I asked this young lady if she were sure that Dr. Blank was a doctor, and she was sure that he was, that every one goes to him, and that all of the doctors send their patients to him. I learned that he was a refracting optician, who had assumed the title of "Dr."

Miss D. B. had just been fitted by one of the most pretentious opticians of our town. She called to see if the lenses were right. As — .25 D. s. could be of no benefit if right, I gave her the candid answer to which she was entitled. Under a cycloplegic she showed a total hyperopia of + 1.50 D. s. ⌒ + .75 D. c. ax. 90°. I gave her a + 1.00 with the cylinders which she has been wearing for years giving her great comfort.

Mrs. S. C., aged 34, a victim of severe headaches, had been wearing + .12 for several years. She supposed that the optician was perfectly competent to give her eyes all the help they needed. Under

a cycloplegic her vision of $^{20}/_{200}$ was made $^{20}/_{20}$ by ℞ + 1.00 Ds. ⌒ + .50 D. c. ax. 90°, which I prescribed, and which she has worn some years with great benefit.

I recently refracted Mrs. K., of Allentown, who was wearing ℞ + 1.00 D. s. ⌒ + .25 D. c. ax. 90°, from one of the much advertised eye-sight specialists of that city. The total hyperopia under homatropine was R. E. + 2.00 D. s. ⌒ + 1.25 D. c. ax. 90°; L. E. + 2.00 D. s. ⌒ + .62 D. c. ax. 90°. I gave her a plus 1.00 D. s. with the cylinders, which she wears with benefit.

Mrs. M., Lewistown, Pa., was wearing ℞ + 2.75 D. s. Distance; + 5.50 D. s. Reading. I prescribed ℞ R. E. + 2.25 D.s. ⌒ + .75 D. c. ax. 180°; L. E. + 2.25 D. s. ⌒ + 1.00 D. c. ax. 180°.

Miss L., Montrose, Pa., was wearing ℞ + .50 D. s. ⌒ + .25 D. c. ax. 90°. Under a cycloplegic I prescribed ℞ R. E. + 1.00 D. s. ⌒ + .50 D. c. ax. 90°; L. E. + 1.25 D. s. ⌒ + .50 D. c. ax. 90°.

Of course, all of these people were perfectly satisfied with the lenses obtained of opticians, but I hope that I have made it plain to you that they were not receiving all of the help to which they were entitled. That the opticians rarely give unsatisfactory lenses is due to a well known trick of the trade. The plan is to give a lens in strength somewhere between 0 and the strength seemingly required. If they give lenses up to the correction accepted at the time they are liable to be called on to refund the money or exchange for others. The correction of the oculists is dangerously near the point of being too strong and thereby uncomfortable. We all know that a proper and helpful correction is not as pleasing at first as a useless one. None of my eye patients sing my praises so much as those on whom I have had occasion to put a weak correction. Then, too, when one's friends and neighbors all want to try the glasses every one can see well with them; *i. e.*, just about the same as without them.

A scientifically accurate and much needed correction will bring but little praise to the one who does the work.

One of the most eminent medical men in this society has given the oculists a black eye for years, because he was given a correction just a little stronger that he could wear with comfort. It was no trouble for a fakir to put some glasses on him that pleased him immensely.

I have found not a few wearing blank lenses, all of whom were

well pleased and could scarcely be persuaded to give them up or to change for others, if needed.

It has been a great surprise to such patients, as the following, to learn how much their vision could be improved by right glasses rather than those that were merely satisfactory.

Mr. A. F., wearing R — 3.00 D. s. finds that he has deprived himself of years' of comfort and perfect vision by not having the — 1.00 D. c. needed in addition to the foregoing.

Mrs. G., wearing a — 4.00 D. s. had a much better opinion of the world when she looked out on it through lenses with — 2.50 D. c. axes 135° and 45° added to the foregoing.

Mrs U. M. was wearing spheres, but required, R R. E. + 1.50 D. c. ax. 90°; L. E. — 1.00 D. s. ⊃ + 1.75 D. c. ax. 70°; which she has worn several years.

Mrs. Judge Blank, Washington, Pa., has worn only spheres, but requires R + 1.25 D. s. ⊃ + .62 D. c. ax. 180° o. u.

Mrs. E. T. T., wearing spheres, requires, R R. E. + .75 D. s. ⊃ + .50 D. c. ax. 1.50°; L. E. + .75 D. s. ⊃ + .37 D. c. ax. 30°.

Mrs. G. was receiving more harm than benefit from + .25 D. s. in very ill-fitting eye-glasses, but she was so well pleased with them that she wore them for years after I urged the uselessness of them. I recently supplied her with R R. E. + .50 D. s. ⊃ + .62 D. c. ax. 70°; L. E. + .50 D. s. ⊃ + .37 D. c. ax. 110°.

Mrs. S. could not wear her glasses, R + .62 D. c. ax. 180° o. u., given by an optician. Under a cycloplegic she required the cylinders with the axes at 90°.

I was consulted some years ago by a young lady, who, realizing that she had eye trouble had sought relief from various non-medical refractionists, including Queen, of Philadelphia. Getting no benefit, an optician whom she consulted, offered to refract her under a cycloplegic on promise of solemn secrecy. He gave her R + 3.25 D. s., which proved to be of great benefit. Some years later I was able to improve on this by giving her R + 4.00 D. s. ⊃ + .50 D. c. axes 165° and 15°.

You may wonder why she did not go to an oculist if convinced of the necessity of a cycloplegic, but you must know that the refracting opticians have created such a fear of the oculists that the masses are deterred from going to them for anything. I have had

personal knowledge of most serious results from this unwarranted fear. Read the various optical journals if you would have my statements confirmed. And, by the way, I want to say that I believe that it is the duty of every physician in the State at this moment to subscribe for the leading optical journals and keep informed on the sentiments they are endeavoring to create and the legislation they propose.

The non-medical refractionists are ever ready to change the work of the oculists. A favorite occupation is to reduce the strength of the lenses. A very shrewd plan often practiced is to change one lens and inform the patient that the other is right. You see this impresses the patient with the superior knowledge of the optician.

Then, too, the optician delights in putting your spectacle lenses into eye glass mountings. That he trades a cheap eye glass for a good gold spectacle mounting and gets a cash difference is not a matter for consideration in this paper. That the effect of the correction is usually changed is a subject of great importance. In eye glasses the lenses are usually drooping, too far from the eyes, and improperly centered. The drooping changes the axes of the cylinders thereby making the lenses unsatisfactory. Glasses should never be taken to opticians for repairs without returning to the oculist to see that the correction has not been changed thereby. It has happened in my experience that the optician has broken the lenses and replaced them with those of different strength. Also, when the patient has broken the lenses the optician puts in something different if he does not have the right one. This might not always be so culpable if he did not assure the patient that the lens is the same. My patients wearing lenses with oblique axes have been to the opticians for repairs and had their lenses reversed thus changing the axes 90°. This was done in one instance when it necessitated changing the reading flake to the lower and outer side of the lens. Of course, it was done to make my glasses unsatisfactory.

A young lady who was my patient for all needs except eyes was wearing — .50 D. s. o. u. I urged the need of a proper test, as this was given by an optician, but she would not trust her eyes to a doctor. Some years later she remarked to me that she had her lenses changed. I found she had the same, — .50 D. s. She had been back to her optician, who said she needed different lenses, but gave her

the same strength. Of course, there was no danger for this examination, but he made a profit of 1500 per cent., if he put in new lenses.

This and nearly all of the instances mentioned involves the leading opticians of the State, those who are clamoring for legal recognition. It is not worthy of mention here that those who peddle from door to door make a good collection of gold goods and leave gold-filled or worse in their wake. But these, also, will be entitled to register if a law is enacted like that now existing in thirteen States, including our next neighbor on the north. I venture the opinion that so many will register as "optometrists" in New York before January, 1909, that there need be no accessions by examination for a score of years.

At the meeting last month in Philadelphia of the American Association of Opticians, it was announced that there would be an attempt again at Harrisburg this winter to enact a law regulating the practice of refracting opticians. They succeeded in obtaining some newspaper reports and, at least, one editorial, commenting favorably on the same. It may seem to be commendable on the surface, but the real purpose is to secure legal recognition of something that is unworthy of it.

I never found the work of the refracting optician right in any patient under forty-five years old, but suppose it were possible for them to refract one case right in four, should they be entitled to recognition? Or, if they could even determine the state of the refraction in three-fourths of the cases, should the system have authoritative endorsement? It is sure that in no case examined by non-medical refractionists is it known that the work is right. As I have said before, and you very well know, *satisfactory glasses do not prove it.*

At the recent Philadelphia meeting mentioned, a paper was read demanding the right of opticians to use atropine to enable them to do accurate refraction work. Of course, this is the end to which they are ultimately working. It is true that the optical schools and much of their literature have taught that the cycloplegic is not only useless, but harmful and misleading in results; but all non-medical refractionists who have had any opportunity have learned otherwise.

The trade journals are full of advertisements of eye medicines intended to be used and sold by opticians, who are using the title of

doctor and exhibiting diplomas freely. Now they demand legislation favorable to themselves. The purpose of it all seems to be that of creating a new class of doctors—cheap eye doctors.

DISCUSSION.

Dr. E. W. Brickley: My experience with ophthalmology, where it has touched the jeweler refractionist is in line with that of this paper. In many cases the patient was wearing a minus glass when he should have been wearing a plus. My experience is that you will find this, as a rule, in young subjects, and the train of evils that this will result in is simply legion. In my locality in former years there used to be an antipathy to the use of the cycloplegic. I admit that some cases have suffered from the use of a mydriatic, but in most cases this is due to carelessness of the patient himself. We have long since discarded the use of atropine. We do find some cases where atropine is a poison, but I have only had one case where homatropin had any bad effect. In this case I afterwards gave the thirtieth potency of the drug and got the physiological effect. I think that these cases should all come under the care of the ophthalmologist. There are some of these jeweler refractionists who are doing infinite damage, mal-practitioners.

Dr. J. W. Stitzel: I have in mind two cases that had been treated by these men. One had been fitted with a pair of glasses having a fifty spherical when the real correction was eight. These men ought to have their licenses taken away from them.

Dr. W. H. Holsberg: I want to ask if after giving a prescription the glasses have been examined.

Dr. H. W. Champlin: Yes, in many instances the prescription has been changed and other lenses substituted.

SEQUELÆ OF IRITIS.

GEORGE H. HAAS, M. D., ALLENTOWN.

There is no more important chapter in ophthalmology than that which treats of the uveal tract and its affections.

No adequate understanding of a very large and important group of ophthalmic diseases can be reached without a knowledge of the

anatomy and physiology of this membrane, and the particular and vital relations it sustains to all the other structures of the eye. It is essentially the vascular coat of the eyeball, and, therefore, plays a most significant part in the nutrition of the entire organ. Any affection which impairs its functions must in some measure prove injurious to the health of the other tissues, depending as they do upon it for nourishment. It lines the entire interior of the eyeball, including the posterior surface of the cornea, thus forming a continuous sac. Having this in view, it would not be reasonable to expect that an inflammation of any severity could be confined to any one area of this continuous structure. Moreover, clinical observation has revealed the tendency for disease of any part of the uvea, but especially the iris to extend throughout the entire membrane. It is this tendency which explains many of the characteristic phenomena of iritis, and the disastrous results which so often follow it. We frequently find that the inflammation has extended to the deeper tissues of the eye, which is manifested by a blurred nerve margin, foggy retina, fluffy and turgid choroid and vitreous opacities. Anatomical studies of excised eyeballs in cases of serous iritis has revealed the fact that no tissue of the entire ball was exempt from the inflammatory conditions, so that those cases of serous iritis are generally uveitis in the general sense of the term.

A fact which, if true in all cases, and which it is probably in some measure, is capable of explaining the discouraging history of this disease. Barring ophthalmia neonatorum it numbers among its victims more blind people than any other disease of the eye, and we find as sequelæ the shrunken, painful and sightless eyeballs, with their secondary lesions in the fellow eye, manifested as sympathetic irritation or transmitted inflammation, usually of a serous type, and also those eyes blind from a secondary glaucoma.

In all cases of iritis or iridocyclitis there is great danger of adhesions taking place between the iris and the anterior capsule of the lens through the beads or masses of lymph poured out upon the surface of the inflamed iris. In the treatment of iritis the thing of paramount importance is to secure and maintain a full dilatation of the pupil until resolution takes place in order to avoid these adhesions. My object to-day, as the title implies, is to discuss the subsequent history of those cases in which, for some reason or other, resolution has not been secured and where synechiæ more or less

extensive have formed. The supposition for a long time was that adhesions, however slight, were a fruitful cause of recurrent attacks of iritis, but more recent observations have shown that where there is no predisposing cause as syphilitis, diabetes, gout or rheumatism, small adhesions are practically of no moment. There can be no question, however, that one attack of iritis predisposes to subsequent attacks in patients who are victims of certain dyscrasiæ, and especially of gout and rheumatism. In such cases the presence of adhesions is to be feared for the reason that they prevent the rapid and full dilatation of the pupil in subsequent attacks, and so favor the formation of additional adhesions.

There are two well defined groups or sequelæ. In the first group we have those cases which from repeated attacks of irits or through neglect of suitable treatment or by extreme severity of the original attack, the entire pupillary border becomes firmly adherent to the anterior capsule. We do not, however, get a complete picture of the disease until we remember that not only is this profuse exudate thrown out upon the surface of the irits, ciliary body, posterior chamber, and contiguous spaces, but in sevère cases it has also involved the choroid, often fiilling the anterior part of the vitreous, while in addition to the exudate, these tissues also become infiltrated with cells. These exudates and infiltrates as time passes on become organized and are converted into connective tissue, which in the first place leads to atrophy of the iris and other infiltrated structures, while the exudates contract and not only bind the lens, iris and ciliary body firmly together, but also by dragging them backwards and inwards, detaching the ciliary, choroid and retina, forming a dense partition, which prevents all communication between the anterior and posterior segments of the eye. These retractions cause the anterior chamber to be deep and saucer-shaped, the pupil is blocked with masses of organized lymph, the ball soft and sightless and undergoes progressive atrophy, meanwhile being subject to frequent exacerbations of increased redness and pain. As the atrophy proceeds, the terminations of the ciliary nerves are pressed upon in the shrinking mass, frequently causing sympathetic inflammation of the fellow eye. We have, therefore, a group of symptoms, viz., a deep anterior chamber, recurring attacks of increased redness and pain, together with minus tension which are of evil import and should always give rise to a hopeless prognosis, and in most cases to

advice for excision to relieve the more or less constant irritation of the fellow eye.

In the second group the trend of events is essentially different; fortunately they are in most instances more amenable to treatment, although always leading to serious impairment of vision. In this group, instead of the anterior chamber being deep we find it shallow, owing to the pressing forward of the periphery of the iris by the exudate behind it. The angle of the chamber is closed by the contact of the iris with the cornea and by adhesions. The pupil is small and situated at the apex of a cone or crater-like depression caused by the bulging forward of the plane of the iris, and is more or less completely closed, either by beads of lymph or the gray capsule of the lens.

These fluids, whatever their nature, are, therefore, retained within the eye with the result of increase of intraocular tension manifesting a strong tendency towards disintegration, instead of organization, as in the first group, possibly on account of the general impairment of the health of the patient. This increased pressure upon the intraocular blood vessels and lymph spaces by retarding the circulation of fluids through them must materially change the nutritive processes of the entire eye, and thus threaten the integrity of that organ from this, if from no other cause.

These conditions set up an entirely new chain of symptoms, which we recognize as secondary glaucoma.

In the views which have been expressed we find sufficient basis for a rational prognosis in this group of ocular diseases, and at the same time a guide to the principles which should govern their treatment.

We usually find a definite relation between the uveitis and a low condition of the general nutritive functions which should always be borne in mind in its treatment, and when we find these affections associated with some general dyscrasia it should be our first duty to remove as far as possible these etiological factors.

We should endeavor to prevent these sequelæ, if possible, by properly treating every case of irits so that no posterior synechia remains to cause these inflammations. In order to do this and to break up the adhesions which have already formed between the iris and lens, atropine should be energetically employed as early as possible and continued during the course of the disease.

Unfortunately, these cases of iritis do not fall into the hands of the

oculists until the inflammation has extended to the other parts of the uveal tract and irreparable damage has been wrought. So also in the ultra plastic cases in their worst form we stand almost helplessly before them, but it is our duty to watch carefully for the first manifestation of injury to the other eye and to excise the shrinking ball at the first sign of sympathetic irritation.

In the second group, the essential object of our guardianship should be to prevent the loss of vision through the agency of secondary glaucoma.

We generally see the patient during one of the recurring exacerbations of acute or subacute inflammation, and the first remedial measure that suggests itself is atropine. However, atropine is not well borne in cases where there is a tendency to increase of tension and may actually inflict great injury by precipitating an attack of acute glaucoma.

Atropine should accordingly be employed only upon quite specific indications, and should be applied no oftener than is requisite to obtain just the results desired, and in cases that show a marked antipathy to its use, some other mydriatic has to be substituted, as Duboisin, Homatropine or Scopolamine hydrobromate, or even the mydriatics may have to be stopped and Eserine employed.

It is plain that permanent or even temporary relief can be hoped for only through the restoration of adequate filtration from the eye, and where there is seclusion or occlusion of the pupil and the filtration angle is closed, this can be accomplished only by means of an iridectomy. If the inflammation is very active at the time of the operation, there is great danger for the coloboma to become closed almost immediately by new exudate. It is best, therefore, to bridge over the active stage of inflammation by means of internal medication, and as soon as the urgent symptoms have subsided perform a broad peripheral iridectomy, which, however, is not always an easy matter, owing to the contact between the iris at its periphery and the cornea, but if the angle is not reached, the operation will not be of any benefit to the patient.

I have, therefore, not hesitated in employing a large keratome and pass it through the space of Fontana, causing it to enter the posterior chamber behind the bulging iris and allowing its point to cut through the iris at its pupillary attachment to the lens, being, however, careful not to injure the latter.

The incision will be followed by a discharge of viscid fluid from

behind the iris. It will be found that a considerable portion of the iris has been excised, this can be seized with the iris forceps, withdrawn and the remaining shreds cut off. An iridectomy in those cases is not only mechanically efficient by removing the seclusion of the pupil, but it has also a favorable influence upon the entire nutritive condition of the eye, and will be followed by a steady improvement of vision, which will be progressive for a long time after the eye has become quiet. In the treatment of all forms of inflammation of the uveal tract complete rest of the eye for a long period must be insisted upon.

In acute cases the patient had better be confined to the house. In the chronic exercise in the open air is allowable, with the eyes well protected by colored glasses.

The diet in the acute should be restricted, but in the ill nourished it should be generous and nutritious.

Internal medication is of great value, and the remedies that would suggest themselves as being of most value are found among the following: Acon., Ars. alb., Aurum, Bell., Bry. alb.. Gels., Merc., Rhus, Sulph., and Thuja.

In the subacute and chronic forms I have always been able to achieve the most good by ten or fifteen drops of a saturated solution of Iodide of potash three times a day in conjunction with the mercurials.

DISCUSSION.

Dr. J. W. Stitzel: In connection with this paper I wish to say that in one case I have had good results from the use of dionin. The patient had been under treatment for years, but in six weeks she had a vision of twenty-fortieths. She had been taking mixed treatment for syphilis.

THE GENERAL PRACTITIONER AND CASES USUALLY REFERRED TO THE SPECIALIST; PARTICULARLY THOSE OF THE NOSE AND THROAT.

HERBERT A. HARRISON, M. D., UTICA, N. Y.

In these days when the race for the nimble dollar is of necessity so active, when the tendency in the practice of medicine is almost invariably toward specialism, when it is realized that the family phy-

sician, in the sense formerly used, is almost a thing of the past, it is well to pause and see whether or not the pendulum has swung too far.

There is the surgeon who does nothing but surgery, who feels that you should send every patient to him who requires the use of the knife in any way, even to the opening of an abscess; there is the gynæcologist, who wants to treat all the diseases of your patients peculiar to and that come under the head of diseases of women; there is the pædologist, who would have you understand that when a baby or child gets sick, if you would have that child receive the best and most skilled and intelligent treatment possible, he should be consulted. The same state of affairs applies to diseases of the eye, ear, nose, throat, orthopædic surgery, diseases of the heart, kidney, liver, respiratory organs, etc. Then there is the man who makes anæsthesia a specialty; then, again, there is the physician who thinks he can cure all his patients chiefly by the use of electricity, vibration, high power lamps, or other methods of physical therapeutics; then there is the man who would cure all foot and spinal trouble by the use of a peculiarly constructed shoe. I might thus, like the brook, "go on forever," but it is needless. It would seem that there is very little that the general practitioner does that does not encroach on the sphere of some specialist, or if I had greater temerity I might dare suggest that the various specialists encroached on the sphere of the general practitioners.

The methods of cure practiced by the various specialists are all right and proper, but you have the same right to use them. Do not be narrow. Learn and adopt as many methods of successful practitioners as you choose and use them. Be broad-minded. Learn to adopt good methods wherever found and make them a part of your own methods. Be broad gauge.

There are scores of physicians to-day who would find an increased income of a few hundred dollars each year very welcome. This can be accomplished by almost any physician, no matter where he is located, if he will make a little effort to treat certain conditions which the public have learned to allow to go from bad to worse until actually bad enough so that the advice of a specialist is really required.

To accomplish this end in connection with nose and throat con-

ditions, the physician should equip himself with a few simple instruments, which are almost as simple and easy to use as a clinical thermometer and then on every possible occasion practice their use.

Get a head mirror, a tongue depressor, a few laryngeal mirrors, a nasal speculum, and some proper applicators and forceps. Get a few of the solutions and sprays most used—Cocaine, four per cent.; Dobell's solution, Seiler's Spray, and begin carefully and thoroughly examining cases and you will be surprised to see how quickly a definite knowledge of normal and pathological conditions will be acquired. And if you choose and there is no reason why you should not, got a tonsilitome and an adenoid forceps and operate a part of your own nose and throat cases yourself, and as you acquire more skill get more instruments and broaden your sphere of practice.

One of the bad throat troubles is quinsy. I will not discuss the remedies usually indicated, Belladonna, Hepar sulphur, etc., but will tell one local application which will do much to add to the comfort of the patient and your own reputation. I dare say you will be as skeptical as I was when first told of the treatment, but if you will jot it down in your memory and try it some time you will find it invaluable to you. First paint the inflamed tonsilar tissue with Cocaine, I use a four per cent. solution, then in a few minutes make an application of a little fuming Nitric acid to the tonsilar tissue on a small pledget of cotton wound tightly on the end of an applicator, being sure to do it quickly while the patient is expiring air from the lungs or holding the breath. Also be sure to hold the tongue out of the way with the tongue depressor. The relief that the patient will experience will be marked and immediate, and if applied early I have learned to expect the attack to progress to a cure without the use of a knife or without breaking. The treatment not only seems to stop the trouble, but also the recurrence of the disease is usually made less frequent.

A child was brought to me who had an ichorous discharge from the nose for weeks. This child had been taken to a number of physicians who had failed to effect a cure. An examination under good light showed that the child had crowded into its nose the rubber eraser from a lead pencil. This was removed and the child's trouble very soon disappeared.

One other condition occasionally met with that can almost in-

variably be cured if properly and persistently treated, is that awful condition called ozæna. Thick crusts form all through the nostril, above and below the turbinated bones, and the resulting stench is such that it is very disagreeable to treat, and, strange as it may seem, the patient himself is unable to notice the odor. This condition should be treated daily at first and later, when the improvement is pronounced less frequently, according to the conditions of the case. The treatment that I have found most successful consists of loosening up the crusts by aid of the post nasal syringe using a warm alkaline solution. The syringe that I employ is the usual hard rubber one introduced through the mouth, turned upward back of the posterior nares and the solution allowed to run out through the nostril, which is accomplished by the patient inclining his head forward and allowing the solution to run forward and out of the nose into a bowl held in his hand. After this is repeated several times peroxide of hydrogen, full strength, or somewhat diluted, is used, employing cotton on a suitable carrier and with a good light from the head mirror the crusts are easily loosened and removed throughout the nostril, the patient assisting by blowing the nose from time to time. The size of the crusts thus removed is often remarkable. After the removal is completed an application of Ichthyol, 25 to 50 per cent., is made. Add a little oil citronella to the Ichthyol solution and its offensive odor is greatly lessened.

A case of hay fever of many years' standing was cured by the removal of a spur on the septum. This man had been examined by various physicians, yet none had suggested the nasal deformity as being the cause of the trouble.

Another condition not so frequently met, but that is very apt to prove fatal and that is often unrecognized, is laryngeal tuberculosis. And, as this is a meeting composed chiefly of general practitioners, I trust you will permit a digression, which, while it applies to laryngeal tuberculosis, as well, applies more forcibly to the general forms. In the State of New York there is now waging a war to stamp out tuberculosis. The State department of health, with our Dr. E. H. Porter at its head, has inaugurated a magnificent crusade. The disease is coming to be recognized by the inhabitants of the State everywhere, as well as physicians, as being a contagious disease that is curable as well as preventable.

In order to cure the disease it must be recognizzed early. If you are not on the alert so as to recognize it early, in the name of humanity do not exile your patient in the later stages to some resort to die among strangers. Dying from tuberculosis is bad enough when at home and among friends. Do not add to the agony by sending the unfortunate person among strangers.

In this great country of ours there is at the present time in round numbers 80,000,000 of people, and unless the death rate from this great white plague is lessened 8,000,000 of these will die from tuberculosis, and of the people who die between the ages of fifteen and fifty, the wage earning period, fully one-third will die from consumption.

Tuberculosis kills as many people as diphtheria, croup, whooping cough, scarlet fever, measles and typhoid fever combined.

In the language of Charles E. Hughes, Governor of the State of New York: "If we had through the misfortune of war, or the sudden rise of pestilence, or through some awful calamity, the destruction of life that annually takes place on account of the spread of this disease (tuberculosis), we should be appalled and mass meetings would be held in every community and demand would be made that the most urgent measures should be adopted. It is only because we are accustomed to this waste of life and are prone to think that it is one of the dispensations of Providence that we go about our business, little thinking of the preventive measures that are possible."

In the early stages 75 to 85 per cent. are curable. The prevalence of the disease means something wrong with our manner of living. The cure can be effected in our own home climate, be that where it may, even, as at the resorts and sanitariums for the treatment of tuberculosis of nation-wide fame. What is necessary is the scientific and intelligent use of fresh air, sunshine, good water, abundant and nourishing food, including plenty of milk, cream and eggs, meat, vegetables, fruit and rest and suitable medicine under a competent physician's care.

In addition to all this, I have for the last eight months been investigating the value of the inhalation of ozone made electrically, and then passed through certain oils of the pinus group by a mechanical apparatus similar to an atomizer. This takes out all the nitrous acid fumes from the mixture and also forms a chemical

union with the ozone so as to form a new compound that can be breathed readily. Its action is two-fold, germicidal to the bacteria with which it comes in direct contact and also a more noteworthy result comes from the combination of the large amount of the ozone compound with the blood in the lungs which is thus carried to every part of the body. An indefinable exhilaration results from the treatment from the thorough oxidation of the blood. The vitality of the person is increased. I have repeatedly seen the sub-normal temperature in run down patients raised one or more degrees to the normal mark during a single treatment. In bronchitis, syphilis, anæmia, neurasthenia, insomnia, as well as tubercular troubles, the results are gratifyingly beneficial.

In the bad climate of Chicago, Dr. W. D. Neel treated 365 cases of tuberculosis and 204 cases made complete recovery. No case was pronounced tuberculosis that did not show the presence of the tubercle bacilli and none were pronounced cured who had any symptoms of the disease left.

In the laryngeal forms of tuberculosis the treatment will depend on a variety of circumstances which will indicate the treatment. It is a very painful condition in the advanced stages and it is sometimes necessary to use opiates. Mild anodynes to control coughing may be needed. Local treatment in the form of sprays of oil of eucalyptus camphor or menthol may be used. Insufflation of aristol, boric acid with iodoform and a number of others are sometimes of service. Wherever it is possible to do so the thorough removal of the diseased part by surgical means should be practiced. This is possible in the case of isolated points of ulceration or excrescences that occur in the upper part of the larynx, but it is not possible where there is a general breaking down or where there are several lesions in the vicinity of, or below, the vocal cords.

Some of the best local applications to keep in stock are:

Cocaine, four per cent.

A combination of, iodine, 10 grs.; potas. iod., 20 grs.; glycerine, 1 ounce, to use as a general stimulating application. This is usually used half strength.

Nitrate of silver, from 5 to 60 grs. to the ounce.

Tannin and glycerine, 5 to 10 grs to the ounce.

After a turbinectomy use tannic acid, 2 parts; gallic acid, 1 part in weak carbolic solution to stop the hæmorrhage.

Resorcin is good in hypertropic rhinitis.

For ulcerations, especially the specific varieties, use cold cream, 1 or 2 ounces, in which 1 drachm tannic acid has been thorougly rubbed.

Use argyol, 10 per cent. to 40 per cent., in naso-pharyngitis with hypertrophy and thick discharge. This is also good in sub-acute or chronic laryngitis. It lacks the irritable effect of silver nitrate.

Silver nitrate, 5 grs. to the ounce. Use as a spray or swab in laryngitis in acute cough following colds.

The careful use of the thermo-cautery will often cure a hypertrophied turbinated body in the nostril and thus do away with the necessity of an operation. In operative work on the nose be conservative. Do not destroy too much tissue else an incurable atrophic condition may result.

To summarize, there are many cases which are puzzling and unsuccessfully treated because the proper diagnosis is not made. Correct diagnosis is often not reached because we are in too much of a hurry to exhaust our means of investigation. Instruments of precision help when used intelligently, but will not take the place of intelligent investigation. There is nothing that helps determine the proper treatment more than an accurate diagnosis, and if all of us would always exhaust every means of diagnosis the necessity of specialists would well nigh disappear, or, rather, every physician would become what he should be, as capable as any specialist in the line that he follows.

DISCUSSION.

DR. M. A. WESNER: My views agree entirely with the ideas of this paper, for I do think that many of us depend too much on the specialist. We may as well be specialists ourselves. A specialist is very good in his place, but many of them get their views narrowed down to the particular case they are going to treat. This paper strikes me very forcibly. I have treated many cases of nasal catarrh without any local application whatever. Study your cases and you can treat them yourself. Again, in quinsy, which is a very annoying trouble, I do not think I have had a dozen cases to suppurate. I make no local application. The general practitioner ought to be the general doctor, and the more knowledge he has the better he will succeed.

DR. J. W. STITZEL: As regards this question of iritis, I wish to say that I owe my left eye to an instillation of atropine. In many of these cases the first thing that I want is atropine and the next the indicated remedy, and I know whereof I speak. If I had not dilated my pupil I would have had iritis as a sequela.

CHOLESTEATOMA IN RELATION TO CHRONIC MIDDLE EAR SUPPURATION.

G. W. MACKENZIE, M. D., PHILADELPHIA.

The relative frequency of cholesteatoma and its importance in relation to chronic middle ear suppuration has not been generally recognized for the following reasons:

1.—That until quite recently the methods of diagnosis have not been entirely satisfactory.

2.—That those cases of cholesteatoma recognizable only by operation have escaped diagnosis in the hands of those who preferred the conservative to the radical method of treatment.

3.—That those cases which were recognized before operation, have, in many instances, apparently yielded to conservative treatment with alcohol or weak formalin solutions.

Relative to the frequency and importance of cholesteatoma,—Heine, of Koenigsberg, found in 1,400 cases radically operated, 616 with cholesteatomae, almost '7 per cent. From a personal study of 105 cases of chronic middle ear suppuration I found cholesteatoma in 18 per cent., and among these, labyrinth suppuration, sinus thrombosis, and other intra-cranial complications occurred five times oftener than in those cases without cholesteatoma. Neumann, in his monograph upon Cerebellar Abscess gives statistics which show that cholesteatoma is the most frequent cause leading to labyrinth suppuration, cerebellar and temporal lobe abscesses, secondary to chronic middle ear suppuration.

According to the period of development, we may classify cholesteatoma into: I.—Congenital, and II.—Acquired. Typical of the congenital is the cholesteatoma of the dura mater. According to its origin, the acquired form may be divided into the Primary and Secondary.

Since the number of primary* cholesteatomae reported are so few and important, we shall consider them in this paper; furthermore, we shall omit consideration of the few cases of cholesteatoma originating in the external† canal and limit our discussion to the choles-

†Bezold refers to a rare form of cholesteatoma of the external canal, associated with concentric widening of the bony canal, due to a disturbance in the physiologic growth of epidermis—resulting in overgrowth.

teatoma of the middle ear, secondary to chronic suppuration.

A cholesteatoma is a more or less spherical, lamellated mass of epidermis (Steinbrugge first compared this lamellation to that of an onion). The surface of the cholesteatoma is dry, smooth and glistening, of a pearly gray color, and is composed of several thicknesses of living nucleated flat epidermis cells. The more central parts of the cholesteatoma are composed of a dirty, gray, cheesy looking mass containing epidermis in various stages of degeneration, fat crystals, cholesterin crystals and debris (Politzer, Alexander), but no bacteria, as has been claimed. The bacteria, when present, are an indication of a secondary infection of the cholesteatoma (suppurating cholesteatoma). Extending from the primary growth, are smaller secondary nodules. These latter may extend considerably into the neighboring bony depressions and even into the widened Haversian canals of the surrounding bone, a fact first pointed out by Kirchner.

The bone adjacent to the cholesteatoma presents a smooth, polished, hard, glistening surface and is covered with flat epidermis, which is generally known as the matrix. Cholesteatomae vary in size from that of a pea and smaller to that of a walnut and larger. They may originate in any part of the tympanic cavity, but are most frequent in the outer attic (Bezold). The next most frequent places are the aditus ad antrum and the antrum; very rarely in the mastoid.

During its growth, the cholesteatoma destroys the surrounding bone by a process of pressure atrophy; surrounding this is a zone of osteo-sclerosis. Occasionally, but not necessarily, we find associated

*Lucae's case warrants its classification among the primary cholesteatoma of the middle ear, since there was no evidence of there being or having been a suppuration of the middle ear. Other cases reported lack evidence sufficien to warrant their classification among the primary cholesteatoma.

caries and necrosis. Eventually the cholesteatoma, which began in the middle ear spaces, destroys the bony walls and invades the neighboring structures. This erosion takes place in any of the following directions:

a.—Externally, leading to complete destruction of the external attic wall; fortunately, this is the most frequent.

b.—Inward, causing destruction of the facial canal with resulting facial palsy; destruction of the horizontal semi-circular canal with resulting fistula and subsequent labyrinth suppuration; and less frequently the promontory.

c.—Upward, through the tegmen-tympany exposing the middle skull fossa, resulting in extra dural or temporal lobe abscess.

d.—Posteriorly and inward, exposing the posterior skull with resulting sinus phlebitis and thrombosis; deep extra dural or cerebellar abscess.

e.—Downward, through the floor of the tympanic cavity exposing the bulbus jugularis with resulting thrombosis; less frequently downward through the mastoid process resulting in Bezold's abscess.

f.—Anteriorly, very rare; exposing the carotid, mandibular joint and even the parotid gland.

Originally, Virchow, Mikulicz and Kuester believed the cholesteatoma to be a heteroplastic growth. Later Bezold and Habermann proved it to be a growth formed by the migration of epidermis from the external canal into the middle ear through a perforation in the tympanic membrane.

The following two conditions are necessary for the migration of epidermis into the tympanic cavity with resulting cholesteatoma formation:

I.—A peripherally placed perforation in the tympanic membrane (Bezold, Habermann) or an adherent hammer-handle (Politzer, Neumann).

II.—A chronic suppurative process in the middle ear with a loss of epithelium and a moderate (not too profuse) amount of secretion with some tendency to healing (Politzer).

The first condition excludes cholesteatoma in acute suppuration, since here we never have a peripheral perforation nor an adherent hammer-handle.

The migration of the epidermis into the tympanic cavity is nature's effort at healing and a too profuse secretion is not only a contra-indication of healing, but, at the same time, hinders this migration.

Under favorable circumstances the migrated epidermis may eventually cover the entire middle ear spaces, resulting in healing. This natural method of healing in chronic middle ear suppuration has been imitated artificially with more or less success by many operators who practice skin grafting into the bottom of the wound cavity, left after radical operation. On the other hand, under unfavorable conditions (localized granulations, etc.) the migrated epidermis may take on an excessive growth with the resulting formation of a cholesteatoma.

Let us next consider the signs of cholesteatoma in the order in which we find them by our examination:

I.—Scanty, thin, fœtid, discharge mixed with dirty gray colored debris. The discharge is scanty for the reason previously stated, —that a profuse discharge is unfavorable to the formation of a cholesteatoma. Likewise its character is thin; however, in exceptional cases (suppurative cholesteatoma) the discharge may become copious and thick and, indeed, if, in the course of chronic middle ear suppuration, the character of the discharge changes suddenly from a scanty and thin to a profuse and thick secretion, the indication is that a previously uninfected cholesteatoma has become infected.

A further characteristic of the secretion is, that it varies in amount from time to time and may apparently cease for weeks or even months, as a result of which, cases of cholesteatoma have been discharged as cured, which, later, developed severe intra-cranial complications.

The fœtidity is of a peculiar character, unlike that of long standing pus in the middle ear, and persists in spite of cleansing treatment with antiseptics.

The dirty gray flakes in the secretion are particles composed of degenerated epidermis shed off from the cholesteatoma.

II.—Peripheral perforation or adherent hammer-handle. From a causal standpoint one or the other of these must be a typical otoscopic finding.

In the cases studied by Alexander and myself, this characteristic finding was always present.

The location of the perforation may be in any quadrant of the membrane so long as it reaches to and involves the annulus tympanicus, excepting in the case of a perforation in Shrapnell's membrane, where, anatomically, the annulus does not extend. It is due more to the absence of the annulus than to any other factor which permits the perforation in this region to reach the periphery more readily than in other parts.

The adherent hammer handle acts in two ways in producing cholesteatoma: First, it helps to close off the antrum and epitympanic space, thus favoring the retention of secretion which acts as a constant irritant; second, the hammer-handle affords a bridge across which the epidermis from the canal can pass into the tympanic cavity.

III.—Associated granulations. I use the term granulations in contra-distinction to polyps. I am inclined to the view of Alexander that granulations act as a causal factor in the production of cholesteatoma and in the cases studied by us we found them present in the majority of cases prior to operation and in the remainder at the time of operation; and they were found at the attachment of the cholesteatoma.

Associated granulations with cholesteatoma have been more or less uniformly observed by all who have interested themselves with the study of cholesteatoma. It is, therefore, our duty in every case where granulations are present to examine further for the presence of cholesteatoma.

IV.—Extensive bone destruction. Especially in cases of extensive destruction of the lateral attic wall or the posterior bony wall of the canal we should suspect cholesteatoma; however, the absence of this sign should not be taken as a negative one, for the cholesteatoma may have destroyed the bone in some other direction, an evidence of which may be found in hard, gritty particles in the discharge.

V.—The presence of a part of the cholesteatoma, as a white, pearly mass, visible by otoscopic examination. Whenever seen as such the diagnosis is certain; however, this is possible only in a relatively small per cent. of cases. Prior to the present decade this was the sign most depended upon for the diagnosis of cholesteatoma. In many cases, instead of a pearly mass, the cholesteatoma may present itself to our view as a mass of dirty gray detritus, mixed with

epidermis flakes, casually spoken of as inspissated epidermis, a sign quite as conclusive as the pearls.

VI.—Closure of the orifice of the Eustachian tube with new formed membrane (Politzer). This sign has not been widely recognized. I have found it present in about 20 per cent. of the cases and when present, believe it to be an important clinical sign.

VII.—Presence of cholesterin crystals in the discharge. This is without doubt, the most important and certain sign of cholesteatoma. Cholesterin crystals are a product of degenerated epidermis, as previously stated, and must, of necessity, accompany every cholesteatoma. From the series of cases studied, the crystals were absent in only 8 per cent., and in this 8 per cent the cholesteatoma were so small and the cholesterin crystals so few in number that they escaped observation.

The method of obtaining and examining the crystals is as follows: First, thoroughly cleanse the external canal by syringing and then mopping with cotton; second, introduce the tip of a Hartmann's canula into the tympanic cavity through the perforation and wash the cavity with sterile water at 37° C.,* turn the tip in different directions, especially upwards and backwards. The presence of polyps need not necessarily interfere with this performance since we can generally get the canula past the obstruction and around the free margin of the polyp. The washings from the tympanic cavity are collected in a pus basin. It will be noticed that the basin contains white shiny flakes floating upon the surface of the water and other dirty gray particles which have settled to the bottom. The third step is in the collection of all solid particles with forceps or a probe and placing them up a glass slide with the little water that may be clinging to them. Without fixing, staining or further preparation they are covered with a cover-slip which is gently pressed to flatten them out. Thus, in a natural state, we study the preparation under the microscope, using a $^1/_6$, a $^1/_8$ or $^1/_9$ objective. It will be found that the white flakes which floated are composed almost entirely of epidermis in a fair state of preservation, but no cholesterin crystals, whereas the dirty gray, heavier particles contain, besides, degenerated epidermis, pus cells, active cocci and bacilli of all sizes and shapes, granular debris and fat crystals, typical cholesterin crystals.

*The water is used at 37° C., since, if warmer or colder than this temperature it would likely produce vertigo and its unpleasant train of symptoms.

Cholesterin crystals cannot be mistaken for anything else; they are colorless, flat, rhomboidal crystals. They may be found single, but generally are multiple. It frequently happens that a corner may be broken off, probably the result of fracture during the mounting. When the crystals are found multiple, it will be seen that the corresponding surfaces and edges of the several crystals are parallel. The presence of a single crystal is sufficient for a positive diagnosis. The examination is not difficult when one has a microscope, and occupies not more than five minutes' time; it can be made by anyone with skill sufficient to introduce the canula.

The above enumerated signs are vastly more important in the diagnosis of cholesteatoma than any symptom or set of symptoms which the patient may present. According to Politzer, a cholesteatoma may persist for years without symptoms, or may be associated with a feeling of weight or pressure upon that side of the head, headache and vertigo. Other authors attach importance to marked impairment of hearing, with shortened perception for high tones which are often present, out of proportion to that found in cases of chronic middle ear suppuration without cholesteatoma; however, the opinion of the writer is that an uninfected cholesteatoma is unassociated with symptoms, other than those which commonly belong to chronic middle ear suppuration, and that when headaches and vertigo, very marked impairment of hearing with shortened perception for high tones and other symptoms exist, they do not belong to the cholesteatoma proper, but to the extension of the cholesteatoma beyond the limits of the middle ear spaces.

Fortunately, uninfected cholesteatoma spreads so gradually that the otologist has ample time to observe his case and make repeated examinations, if necessary, before making his diagnosis. On the other hand, a cholesteatoma may, at any time, become infected by the use of unclean instruments or by minor intra-tympanic operations—such as removal of polyps, ossilectomy, etc.; when the cholesteatoma swells rapidly and becomes one active suppurating mass, it is almost invariably and promptly followed with vital complications.

Concerning chronic middle ear suppuration, Wild says and Bezold reiterates it—that, "so long as a discharge from the middle ear is present, we are unable to tell how, when or where it may end, nor to what it can lead;" if this applies to chronic middle ear suppuration

in general, then it applies with double force to those cases associated with cholesteatoma.

The treatment of cholesteatoma has been conservative and radical.

The conservative treatment with free intra-tympanic antiseptic douchings, followed by alcohol or a weak formaline solution, has given apparently good results in the hands of some men; however, the experience of others shows that though the cholesteatoma may be less evident for a longer or shorter period after such treatment, it invariably recurs. It has been shown that no amount of alcohol nor formalin will reach and destroy the matrix; besides, in most cases the matrix is so located as to be inaccessible to such treatment. In view of these facts and knowing the tendency of the cholesteatoma to spread to vital extra tympanic structures and the still greater danger of it becoming infected, it is far safer to accept the teachings of the leading otologists and treat radically every cholesteatoma, even at a stage before vital symptoms have had an opportunity to develop.

The radical treatment consists of the "Radical Operation" after Kuster-Bergmann, with total excochleation of the cholesteatoma, together with the surrounding bone 1 or 2 M.M. thickness to include the matrix and all the small bud-like projections, no matter where it may lead. The operation, in case of cholesteatoma, is generally easier than in other cases since the cholesteatoma lead us readily into the widened antrum. The important part of the operation is to see that every trace of the surrounding sclerotic bone has been thoroughly curetted.

REPORT OF THE

SECTION OF OBSTETRICS.

The Application of the Homœopathic Remedy in Obstetrics, by E. A. Krusen, M. D.

The Advantages of Hospital Treatment of Maternity Cases, by B. F. Betts, M. D.

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The Antiseptic Technique in Obstetrical Practice, by H. M. Gay, M. D.

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The Use of Short Forceps, by J. R. Swartz, M. D.

Accidental Abortion, by M. A. Wesner, M. D.

THE APPLICATION OF THE HOMŒOPATHIC REMEDY IN OBSTETRICS.

E. A. KRUSEN, M. D., NORRISTOWN.

There is nothing in the field of medicine or surgery that the family physician has to deal with that will bring him more glory and honor than the successful management of obstetrical cases. He is defending the life and health of the mothers, and whatever touches the hearts of the mothers of our country touches the hearts of every human being. Therefore, it is due to the mothers to have brought to them the very best that our age of medical and surgical skill can produce.

In ages past it was believed that childbirth needed little or no medical attention, and most cases were relegated to the care of older women of the neighborhood, or to midwives. Not until the cases assumed grave and even dangerous symptoms, was the advice and help of a physician sought, and in many cases too late to prevent lacerations of various kinds and degrees, but too late to save life. It is quite probable that if the women of our country could or would observe the dietetic and hygienic laws of health during the period of gestation, there would be less need for the careful attention of a physician before labor, or even during labor.

Every physician knows full well that under the present status of

society and of women in the pregnant state, it is not well for a physician to accept a call to attend a patient in labor unless he has had full control of that patient several weeks before her expected accouchment.

I have sometimes felt that too many of the abnormal conditions found in the lying-in chamber are deemed impossible to relieve, or else relegated to manual or surgical treatment, when the whole trouble could easily be remedied by the administration of the properly selected homœopathic remedy.

In the first stage of labor the old time idea of allowing time, and a nervous, timid primapara to work out the problem alone, has been exploded. If there are no deformities of the mother or child, or malpositions, much can be done to shorten and modify labor in every stage, by the use of the similimum. Who has not seen that rigid undilating os soften like magic after the administration of Belladonna or Gelsemium? In this stage you will often find the pains poorly borne by a nervous, tearful woman. She grows despondent and knows she will not survive her labor, often audibly regretting the day of her marriage. All this can be changed in a few minutes by the use of such remedies as Coffea cruda, Chamomilla, or Pulsatilla, which, in their effects, are like the pouring of oil on troubled waters; the pains will lose their spasmodic character, and harmonious muscular action becomes established.

In the second stage, when the os uteri is fully dilated and the fœtal head has entered the superior strait, there may be a cessation of pains. It may not be an indication for forceps, but for medicine, Gelsemium, Secale, or Caulophyllum may re-establish the pains, and in so doing re-enforce the whole female economy.

If there is a neurotic history in the family, signs of convulsions may be looked for and should be met with Stramonium, Cuprum arsenicosum, Cuprum metallicum, Hyoscyamus, Cicuta and others.

It may occur to some to ask,—How long shall we wait for the medicine to act in these conditions? My experience has been that the proper remedy will act immediately, and, if no action is noticed in a few minutes after its administration, another remedy should be selected, which will shorten labor and make it less painful.

We now come to the third stage, and it is here we find the broadest field for the exhibition of our remedies. The mother just de-

livered realizes one of the happiest moments of her life. After the pangs of labor have suddenly ceased, her entire system is relaxed and exhausted. The placenta may be adherent or retained. If this is so, Pulsatilla, Caulophyllum, Cantharis or Sabina, will greatly aid you in its delivery. Hæmorrhages are apt to occur at this stage, which often tax the courage and skill of the physician to the utmost. They become terrific and terrifying, but a stout heart and a clear understanding of the remedy, with a resolute dependence in the similimum, will carry the patient safely through the most alarming experiences of her life. Fluid extract of Ergot is not to be compared with the action of such remedies as Ipecac., China, Sabina, Trillium and Secale in potencies. These, of course, must be combined with manual treatment in the way of friction over the uterus, hot water and douches, and elevation of the foot of the bed.

Shock and exhaustion can be met temporarily with alcoholic stimulants, but do not depend on them long or you will lose your case. Reaction can better be established by giving China, Carbo veg., Arsenicum alb., Chininum Arsenicosum, etc.

Afterpains, instead of being lulled by the use of Morphia, or Antikamnia, or some other hypnotic, which nearly always leave a train of stupefying symptoms, can be controlled by Gelsemium, Caulophyllum, Actaea racemosa, Belladonna, Arnica, Viburnum, Morphia aceticum.

For Septic Infection.—Arsenicum, Baptisia, Echinacea, Pyrogen, Lachesis, and Arnica, will usually start the case toward recovery, which can be safely carried onward to good health by the properly selected remedy.

After attending a woman through a normal, healthy labor, where no special remedy is indicated, I always prescribe Arnica. After labor the tissues are always left more or less bruised and sore. Arnica will relieve that soreness and produce an early repair of the tissues and rest of the patient.

In presenting this subject I have said nothing, or very little, about surgical aid or pathological conditions, but wish only to impress on you the wealth of that great storehouse of remedies that can be used to render labor shorter and less painful, if we will only use them instead of delaying, and then, on the spur of the moment, use more radical and questionable methods, which often bring failure and disastrous results.

THE ADVANTAGES OF HOSPITAL TREATMENT OF MATERNITY CASES.

B. FRANK BETTS, M. D., PHILADELPHIA.

In a course of lectures delivered by Dr. W. Tyler Smith at St. Mary's Hospital, London, and published in this country in September, 1858,—just fifty years ago,—this eminent authority commenced his discourse on puerperal fever, with the following statement: "About 3,000 mothers die in childbed annually in England and Wales. This is an average of nearly eight deaths every day from this cause. * * * The fatality from childbed fever is, however, in the present day, moderate, when compared with the epidemics of former times in which, of those attacked, positively none recovered. Though it is still little amenable to treatment, there is reason to hope that preventive medicine may hereafter almost, if not entirely, eradicate this formidable disease." These were prophetic words before Pasteur and Lister had demonstrated the necessity for the adoption of rational aseptic methods in surgical and obstetrical practice. In another part of this lecture we find the following: "The fiercest outbreaks of this disorder have occurred in lying-in hospitals or hospitals whose lying-in women are received with surgical and medical cases. * * * On this account many have doubted whether lying-in hospitals are not mischievous rather than otherwise in the present limited state of our knowledge of the means of preventing puerperal fever. Women confined even in misery and squalor in their own homes are less liable to the disease than patients collected together in hospitals."

After dwelling upon the importance of the removal of these cases from the neighborhood of contagious, epidemic or infectious diseases, and the necessity for physicians to change their clothing and have it exposed to the fumes of chlorine, and the recommendation to inhale dilute fumes of chlorine several times a day and not touch anything connected with any source of danger before attendance upon labor cases he concludes his lecture as follows: "It is impossible to be too scrupulous in a matter of such moment, and I have known accoucheurs who, on entering a lying-in room, always wash their hands before making an examination."

In another lecture of this course this author again remarks: "The

fingers of the practitioner are evidently a fertile source of contagion. The dangers arising from the attendance of students upon lying-in women when they are dissecting and attending autopsies is exhibited in the most startling form by the statistics of the great Vienna Lying-in Hospital. In this institution in six years, from 1840 to 1846, 22,120 women were delivered. Of these 2,260 died, the mortality being in the enormous ratio of one in every ten." The mortality, says this lecturer, has since been reduced to one in seventy-four, and the reduction has dated from the time when Dr. Semelweiss enforced the regulation that every student should, before and after each vaginal examination, wash his hands in a solution of chlorate of lime, and also interdicted the students from touching dead bodies when in attendance upon the obstetric service.

In concluding the present course of lectures, he says: "I cannot but look forward to the time when the present mortality from childbearing will be greatly lessened. It is consolatory to know that every succeeding generation of students and practitioners will come to the work with added means of science and experience until at length * * * no unnecessary mortality shall take place in parturition. Women were ordained to bring forth children in sorrow, but certainly not in death."

From such expressions of confidence and faith in the future scientists received their inspiration and encouragement, but it was not until 1880 that bacteriology began to be recognized as one of the most important additions to medical knowledge that has ever been made.

At the time these lectures were delivered it was only as a last resort that patients entered lying-in hospitals for their mortality rate was excessive. It would have been appropriate to have written over the door of entrance "She who enters here leaves hope behind." But from the triumphs gained from asepsis an appropriate inscription at the present time would read: "She who enters here adds security to hope," for the present day mortality average for lying-in patients is less than one-half of one per cent. from hospital treatment, and in the out-patient service at patient's homes it is slightly in excess of this.

The report of the Rotunda Hospital, in Dublin, which is one of the oldest and best equipped hospitals in Great Britain, shows, ac-

cording to Dr. Tweedy, that 2,254 patients were cared for in the out-patient department in the year 1906, with a mortality of eleven, or .48 per cent. of deaths from all causes, and 1,904 patients treated in the hospital building with eight deaths, or .42 per cent.

This report gives .06 per cent. advantage in favor of hospital treatment. As regards morbidity, a temperature reaching 100° F. or more, on two occasion between the second and eighth day, meets the standard of the British Medical Association for puerperal infection complicating the lying-in period, and the morbidity according to this standard in the Rotunda Hospital was only 8.43 per cent. The records of the New England Hospital for Women and Children, the oldest institution of the kind in Boston, Massachusetts, show from A. D. 1892 to A. D. 1902, during the evolution of aseptic technic, but one death in 1,050 cases, and no epidemic from puerperal sepsis in twenty years. Their morbidity, as reported, was less than 8 per cent. in septic infection during the past year.

In the attempt to record the benefits to be derived from hospital treatment of maternity cases we should not only consider the advantages acquired by patients, but also those secured to physicians in attendance. We recognize the fact that the family physician should be the best friend of the maternity patient during the trials of parturition. To meet her requirements there must be no shrinking of duty at this time, no lack of efficiency and no loss of interest in her welfare; and, yet, what a sacrifice of time, strength and convenience is required, and how poor the reward when it is all embraced in the meagre charge made for professional services in such cases?

In the thickly populated sections of our country hospitals are being established in almost all towns of importance. If they are equipped as they should be, according to modern ideas, they should prove to be a blessing to both physician and patient at the time of the confinement. In order that they may be more frequently utilized for this purpose, physicians should not be obliged to relinquish all charge or care of these patients, even when they belong to the poorest class, provided they conform to the rules necessary for the proper management of the institution and the best interest of all the patients. With properly qualified nurses and assistants in touch with the case the physician can be notified when parturition is imminent.

If unavoidably detained he can feel that the patient will be properly cared for. If assistance is needed it is available, and the security he must feel from the absence of infection in all that comes in contact with his patient is most satisfactory. When the patient leaves the hospital he is still her family physician, for he has not ignored his obligations in one of the most important epochs in her life.

The most important modern consideration in the treatment of maternity cases lies in the fact that aseptic requirements are as necessary in obstetric practice as in surgery. To meet these requirements patients must either change the conditions within their home apartments to make them equal those of the hospital, or they must resort to the hospital for the necessary security from septic infection.

As the proverbial chain "is no stronger than its weakest link," asepsis fails of its purpose if one mistake is made or one precaution omitted in the series during the management of an obstetrical case and it is almost impossible to avoid these omissions and mistakes in patients' homes.

Surgery has its triumphs and obstetrics has been moved to a surgical position in the practice of medicine. The requirements of surgery and obstetrics are almost identical. In each there must be a careful preliminary diagnosis made; the necessity for aseptic prophylaxis; and the recognition of the necessity for surgical, as well as medical treatment in septic conditions is the same, and when serious illness arises from the neglect of aseptic principles the same morbific influence often leads up to a fatal termination. The bacteria concerned in puerperal infection are identical with those with which we are familiar as causing wound infection, and puerperal infection must be mostly regarded as wound infection, due to the entrance of pathogenic germs into the genital tract, either before, during or soon after labor. If obstetric practice does not keep pace with surgical practice we are not meeting scientific requirements. The fact must be recognized that the approach to the birth canal and its invasian during childbirth requires a technic equal to that observed by the careful abdominal surgeon.

Modern maternity technic is modern surgical technic and to conduct a labor aseptically requires as much, if not more care, than is necessary for an aseptic surgical operation, especially when the labor

is prolonged and the patient frequently passes under the immediate supervision of the physician.

This point is dwelt upon because there are many persons, even physicians, of good repute, who doubt whether the extreme care now taken in hospitals is needful, or that it pays for the outlay both of time and money. Statistics prove that it does pay and is necessary to save human lives, hence the hospital serves an important purpose as an educational center.

In the home treatment of maternity cases it is always difficult, expensive, and in some cases, almost impossible, to carry out hospital requirements. When a patient enters a well regulated maternity hospital for her confinement, she is first bathed in the tub under the supervision of a competent nurse and receives a hose or shower bath while standing in the tub from a rubber hose attached to the spigot. This final rinsing extends from the shoulders to the feet. The hair about the genitals is clipped. The genitals and thighs are scrubbed, first with soap water, then with the bi-chloride solution, and again rinsed with the hose shower. A sterile pad is applied to the perineum and vulva and after defecation and urination the cleansing of the vulva is repeated, and these parts are bathed by the nurse before each vaginal examination. The patient is clothed in clean clothes, placed in a clean room in a clean bed and when the end of labor approaches long sterile stockings reaching to the hips are drawn over her feet and legs, and a sterile sheet is folded and placed in front, underneath and above the pelvis and thighs as the patient lies upon her left side in bed, so that the opening of the sheet is posterior.

The prophylaxis of puerperal infection should begin early and the means used for the prevention of an infection of puerperal wounds should include pelvimetry before the seventh month of gestation, especially in the case of primaparæ so that the necessity for premature delivery may be considered.

Hospital treatment of maternity cases should be the rule when a Caesarean section for premature delivery is required, and the risk of a vaginal extraction of a full term fœtus in cases of contracted pelvic outlet should always lead to consultation when the family history or other reasons point to its necessity. It is from wounds of the birth canal during parturition that danger emanates. Cases of

placenta praevia centralis are cases for hospital treatment, when serious flooding has given the warning signal that points to imminent danger, for in these cases Caesarean section may afford the best chance for recovery.

If Caesarean section is performed early enough and with aseptic precautions it is the safest of all abdominal operations, but it must be early enough to be uncomplicated and free from the danger following frequent vaginal examinations, lacerations and bruises which are inevitable in the effort to effect delivery in unsuitable cases by forceps extraction, version, etc. Every operator will be pleased with the well being of a patient after an uncomplicated delivery by Caesarean section as compared with a difficult vaginal delivery, by forceps and its attendant bruising and laceration of tissue. After the operation for version, cervical section, hebosteotomy or pubiotomy, as it is more frequently called, we have often to deal with injuries to the cervix, vagina, perineum and sometimes the bladder and ureter, the full import of which is not revealed, except at an autopsy.

Much of the difficulty, as well as the danger from parturition arises from a faulty diagnosis of the child's position upon presentation, by the obstetrician in attendance. This can be overcome, to a great extent, by placing the patient upon a suitable hospital table and in the lithotomy position for the initial examination. The unskillful treatment of occipito-posterior positions and too early interference by forceps delivery may be blamed for much of the morbidity arising after parturition, as likewise too tardy resort to this aid. Both may be more readily avoided in hospital treatment when the physician is not influenced by other professional engagements. It is unnecessary to dwell upon facilities afforded the physician and the advantages gained by patients from hospital treatment in cases requiring other obstetric operations. Transverse presentations and all forms of dystocia, eclampsia, prolapsed cord, uterine hæmorrhage and uterine rupture can all be most efficiently treated in the hospital.

For the repair of perineal and cervical lacerations after parturition a clean table, a good light, and a properly adjusted speculum are essential. But none of these are obtained in a parturient bed soiled by perspiration, fæcal discharges and other foul material. A tallow candle, a smoky lamp, a low bed, afford poor facilities for this operation. In the home treatment of these cases it has often been a ques-

tion whether it would not be better to leave the wound open rather than close it under conditions which lead to the formation of pockets for the accumulation of foul matter caused by incorrect coaptation due to poor facilities for operating.

When fever develops after parturition it means septic infection in many instances. If we can exclude an infection through the nipples leading to mastitis we look for sources of pelvic infection most frequently from the vaginal canal through a perineal or cervical tear or an infection at the placental site. When a laceration has provided an open door for the entrance of germs good treatment requires the patient to be placed on a good table so that we can thoroughly expose and examine all parts of the vaginal canal and cervix and apply that important surgical rule for all such cases which consists in the removal of necrotic tissue and foul discharges and the adoption of measures calculated to secure good drainage, even if it requires the removal of sutures and the exposure of raw surfaces which have been imperfectly adjusted or fail to unite.

In conclusion, an appeal is made for the best facilities possible for childbirth. Facilities which will secure to women decreased mortality and diminished morbidity, so that they may fulfill their mission in the world without invalidism as a sequel to maternity. Obstetrics is one of the most important departments of medical practice, as it is one of the oldest and most honorable, and it should be carefully practiced so that women may get the best diagnostic skill and the best surgical technic during and after labor. Then women will not go to child-bed in sorrow, and humility of spirit, or shun maternity as they would a great misfortune, for it is the fulfillment of the noblest aspiration of the sex to become a mother and to be able to rear a child.

Greater attention should be given the life of the child in utero, for unnecessary forceps delivery, delay in the second stage from persistent occipito-posterior position, and unskilled breech extractions cause many more still-births than do contracted pelves alone, which are rare in this country. Abdominal delivery by Caesarean section is easier and safer than version or the high forceps operation, and delivery with placental praevia centralis by abdominal section will save the lives of many children and diminish much maternal suffering.

The training of mothers in the care of infants is another great ad-

vantage that may be derived from hospital treatment of maternity cases, and in no way can the prevention of blindness in the beginning of life become more satisfactory than by using the facilities afforded in hospitals for a relay of nurses for those extreme cases, which require constant and uninterrupted attention to the infected organs after birth.

DISCUSSION.

Dr. J. E. James, Jr.: Dr. Betts has brought before us a subject which interests each one of us, a subject that the doctor has covered most thoroughly. It is a subject which every one of us who practices obstetrics ought to give serious consideration. Obstetrics to-day, as compared with that of eight or ten years ago, is an entirely different subject. To-day we teach and practice up-to-date- obstetrics. As a result we find that the mortality is decidedly low. The advantages that can be derived by doctors in attendance upon women in confinement in hospitals over that of the home, no matter what the conditions (those of the hospital) are manifold. The progress in the last few years has been on the line of strict asepsis. In other words, the obstetrician must be as safe as the surgeon. With the advance of asepsis and antisepsis we believe that our technique even in hospitals, can be absolutely perfect. We must bear in mind that every time we manipulate we are adding added risk to the patient. Conservatism must be our guide and this can be obtained in the hospital. There are many things to contend with in the homes. The family ask us to do one thing and another. In the hospital we are not led to too early use of forceps or manual dilatation of the cervix. I emphasize the use of the pelvimeter as an absolute rule in all cases, but there are some in which it is used to the injury of the patient. On the other hand physicians think that the taking of these measurements is all that is necessary.

DISEASE OF THE HEART COMPLICATING PREGNANCY.

F. W. BOYER, M. D., POTTSVILLE.

In February last I saw, in consultation, a case of labor in a primapara, the victim of a high grade of mitral stenosis. She had consulted a physician five months earlier for breathlessness and prae-

cordial pain, and had been intermittently under his care ever since, growing slowly worse, and shortly after going into labor had an acute attack of pulmonary œdema. Under vigorous stimulation she recovered, but the child, born asphyxiated, died after twelve hours.

Mitral stenosis is generally admitted to be the most serious of the valvular heart lesions complicating pregnancy and labor. While rare, it is not extremely so, and it is odd that a search of the periodical literature of the last twenty years discloses a bare dozen articles treating of this complication.

In 1888, Hart (—1—) published eight cases with seven deaths. In his series alarming symptoms became manifest about the end of the labor. He discusses the seriousness of the condition and outlines a rational plan of treatment. It is only fair to say, however, that his cases were in a serious condition from the heart lesion alone, irrespective of pregnancy.

Two years later, the same author (—2—) published three additional cases, with two deaths. At this time he announced the principle, whose importance we shall shortly see, that the seriousness of the condition depends on the extent of dilatation of the right heart.

In 1893 Lusk (—4—) in this country advocated abortion in every case of pregnancy complicated by mitral stenosis. Small groups of cases were published from time to time and in the early part of the present year the whole subject was gone over in a thorough manner by Prof. L. Pouliot (—9—) to whose article I wish to acknowledge my indebtedness for the greater part of the material presented at this time.

Based on the study of nearly a thousand cases of labor complicated by heart disease, his conclusions are much more favorable to the patient than those of the earlier writers.

Heart disease is fairly common in pregnant women, occurring once or twice in the hundred cases.

Williams (—10—),	½ per cent.
Demelin,	1.23 per cent.
Vinay,	2. per cent.
Fellner,	2.4 per cent.

The great majority of these show no symptoms, Williams (—10—), having seen but one with alarming symptoms in over

3,000 cases of labor. Champetier de Riber states that 8.62 per cent. of the cardiac patients suffer during pregnancy from noteworthy accidents. A few, however, do die as the result of the complication, probably around 5 per cent. of those affected.

Fellner, 6.3 per cent.

Demelin, 5. per cent.

The incidence of mitral stenosis is found by Fellner to be in the neighborhood of 5 per cent. of the heart cases, but the mortality in this small group is very high, probably not less than 50 per cent.

Guerard,	28 %	Berry Hart (—1—),	87.5 %
Schleyer,	48 %	Berry Hart (—2—),	66.7 %
Leyden,	54 %	Berthurt Casanova von Leyden,	55 %
MacDonald (—3—),	60 %		
Lublinsky,	100 %		

Symptoms frequently appear during the fourth or fifth month, consisting of little dyspnœa, which usually increases rapidly and becomes continuous, œdema of the ankles, and cyanosis. It is characteristically of rapid course, quickly going on to failure of compensation. The right side of the heart is severely and the earlier affected, so that there is frequently engorgement of the bases of the lungs and distention of the cervical veins and hemoptysis is a frequent symptom. Death occurs in the fatal cases in several typical ways.

Œdema of the lungs is a fairly frequent accident. In another group the heart fails to keep up with the added strain of labor and the patient dies of simple asystole. A third group struggle through labor, but do not react, so at the end of a variable period of time, three to twenty days, the heart suddenly yields. During this time the condition is latent, the patient exhibiting only progressive asphyxia. This is found especially in those already weakened by debilitating disease.

Œdema of the lungs differs in no respect from the same condition aside from labor. Sudden suffocation, air hunger, cyanosis and dyspnœa, followed by a cough, with profuse pinkish, watery expectoration. (Mortality, 68 per cent. Pouliot (—9—).)

Of the heart lesion that predisposes to each particular accident it is rather difficult to judge, but in all of them it is the mitral rather that the aortic, and the stenosis rather than the insufficiency which is especially dangerous.

A most important factor in estimating before labor the danger to which labor at term will expose a given "gravido-cardiac" patient, is the condition aside from the heart. Particular mention may be made of deformity of the chest, pulmonary affection interfering with pulmonary circulation, and the state of the kidney. This with special reference to pulmonary œdema.

Simple asystole, heart failure, the more frequent accident, also is accessible to prognosis. Precisely as in the non-pregnant the critical factor is the state of the myocardium. A valvular lesion, whatever its extent, is dangerous to life in so far as the myocardium is insufficient to fully compensate at the same time for the lesion and for the increased work of pregnancy.

Keeping these conditions in mind, then, it will appear that Lusk's dictum of abortion, as soon as diagnosis is made, is too severe. Women with heart lesion, even severe ones, survive the, nevertheless, real dangers of pregnancy and labor, and there are rational means of estimating in advance the degree of risk they will run.

When the physician is able to see a case in time, the following consideration should lead him to forbid pregnancy: An attack of asystole, be it ever so slight, or the least circulatory defect, such as œdema of the ankles.

Blood pressure, especially low, say, below 12 c.m. or above 18 c.m. of mercury.

Pulmonary lesions, thoracic malformation and alteration of the kidneys should be regarded with especial fear, inasmuch as they predispose to that most dangerous accident, pulmonary œdema. The least albuminuria, if persistent, should be sufficient ground on which to forbid marriage. Advice as to marriage is not likely to be followed, but should be given to all interested, nevertheless. Certain lesions are particularly dangerous. Narrow stenosis, particularly of the mitral and aortic valves, myocarditis and adherent pericardium are the most important.

This list, while long, nevertheless, allows to escape nearly 90 per cent. of those with demonstrable heart lesions and in these, accidents will but rarely occur. Treatment can do much also for these people. It is to be remembered that in mitral disorders the heart acts under the most favorable circumstances when the rhythm is slow and especially when diastole is prolonged. When the myocardium is near

the limit of its power, peripheral resistance must also be considered. Strophanthus, as a remedy, should be preferred to Digitalis, as it has less vaso-motor effect. Rest, attention to diet, and care of the bowels should be enforced. Passive exercise has been shown to reduce blood pressure and is desirable. Nitro-glycerin may be found useful.

As the onset of the alarming symptoms is frequently during the third stage of labor, it is proper to shorten labor by the use of forceps, and sufficient anæsthesia for this purpose is not contra-indicated. During the acute attack bleeding is agreed upon by most writers, as the measure of prime importance, both in acute dilatation and in pulmonary œdema.

Ergotin should not be given to these patients. No alarm need be felt at hæmorrhage even if moderately free; indeed, it is the failure to bleed freely which is the more alarming sign. If the circulation becomes embarrassed, stimulation should be freely employed. If not promptly useful, bleeding should be performed.

The question of abortion and premature induction of labor is one for the obstetrician rather than for the general practitioner. Abortion would be justified only, if, in addition to the valve lesion, there were decided failure of the myocardium increasing in spite of proper treatment, or some renal or grave pulmonary complication. Premature induction of labor, on the other hand, is not only justified, but, if proper surroundings are available, should be practiced in a large proportion of cases. The gain in time elapsing during labor, if labor is induced two or three weeks before term, will much more than compensate for the slight risk of infection by suitable procedures with ordinary aseptic precaution. In an article such as this it will be impossible to indicate special treatment for any class of cases, as each case must be treated according to the individual abnormal conditions and symptoms as they exist or present themselves. We have in Cactus, Cratægus, Convallaria, Naja, Lachesis, remedies from which selection can be made. The general care and environment of the patient is the larger factor in the well doing of the individual.

Finally, the question of laceration arises in each of these cases. It may be permitted to cardiac cases as to any other, on the basis of general condition. If the patient is in fair health the presence of a valve lesion is not sufficient ground to interrupt lactation.

BIBLIOGRAPHY.

1.—D. Berry Hart. Edinburgh Med. Jour., Feb., '88.
"Mitral Stenosis and the 3d Stage of Labor."

2.—D. Berry Hart. Laboratory report R. C. P. Edinburgh, 1890.

3.—Angus MacDonald, "The bearings of chronic heart disease in pregnancy, parturition, and child-bed." (1878.)

4.—Lusk. Medical News, Phila., 1893. Volume 62.
"Mitral Stenosis in Pregnancy."

5.—Vinay. Arch. de Tocologie, 1893, page 805.
"Maladies valvulaires et grosseuse."

6.—Zweigel. Centralblatt fur Gynæcologie. 1897, pages 1-16.
"Todesfalle von Schwa. und Wochnerinnen."

7.—Fellner. Monatschrift fur Geburtshilfe und Gynæcologie, 1901, xlv, pages, 370-417 and 497-520.
"Herz und Schwnagerschaft."

8.—Guérard. Ibid 1900, xll, pages 571-577.
"Herzfehler und Schwangerschaft."

9.—Pouliot. Archives generale de medecin, 1908, lxxxviii, 65.

10.—Williams. Obstetrics, 1903, page 441.

THE ANTISEPTIC TECHNIQUE IN OBSTETRICAL PRACTICE.

H. M. GAY, M. D., PHILADELPHIA.

I have given this paper the title of The Antiseptic Technique in Obstetrical Practice to distinguish it from the Aseptic Technique as found in text-books on Obstetrics. It seems to me that outside of hospitals, equipped especially for this class of work, or in families where expense is absolutely no object, the aseptic method of conducting confinement cases is practically impossible.

The general practitioner, when he consults the text book on obstetrics, finds the technique outlined, of absolutely no practical value. It seems almost as though authorities on this subject had forgotten that the bearing of children is a normal process. When the elaborate preparations advised are put into execution, one of two things in-

variably happens. If there have been children in the family before, the mother thinks the doctor is crazy; if the case is one of a primapara, she is usually frightened into something bordering on hysterics. There has been a plan adopted in some quarters to relieve the situation in some measure, of having obstetric packets, which contain all the necessary, or supposedly, necessary, paraphernalia, but this has not resulted in relieving the situation very much. Either the packets did not contain the most necessary articles, or they are too expensive for the ordinary family to buy. The objection is made that "when our last baby was born, Dr. So-and-so did not require us to go to all this extra expense," the inference being that probably the doctor's share in some pecuniary way with the house that puts up the packets. The general practitioner thus, in view of these facts, is extremely apt to get into a careless and slovenly way of handling confinement cases in poor or moderately poor families, feeling that everything will be "all right" and any bad results, especially in ignorant families, may be attributed to a dispensation of Providence. This results badly in two ways: First, he loses the ability to institute the proper technique and thus he loses the confidence of intelligent and well-to-do people; secondly, he gets some bad resuts which an enlightened conscience must attribute to his own carelessness. Without giving a more extended preamble, then, I offer the following technique:

First: The nurse is instructed to provide a pound of absorbent cotton, unopened until the doctor arrives on the scene; half a dozen towels that have been boiled in the process of being washed (by the way, it is well to note that a great deal of washing is being done in these days without boiling); a bundle of clean washed and ironed rags, which have been especially washed and ironed for this occasion; a clean wash bowl or large porcelain basin; a bucket, not an ordinary wooden bucket out of the back yard, but a clean, new, galvanized, iron bucket, or slop jar; a clean, small hand basin, or "wash-pan;" a pitcher of cold boiled water, and a kettle of boiling water. There should also be some newspapers to spread at the side of the bed; two newspaper pads covered with clean old muslin or cheese-cloth, and a strip of mackintosh or table oil-cloth long enough to go across the bed. There should also be provided, two dozen antiseptic napkins or vulvar pads. Unless there is a trained nurse to make them, they

had best be bought sterilized at the drug store. The physician takes in his case the ordinary instruments, etc., recommended, which need not be enumerated at this time. They should include, however, a fountain syringe, an intra-uterine irrigating nozzle, some pieces of umbilical bobbin in envelopes, a coat and apron and a good supply of lysol.

When the attendant is called to the case, if the pains are coming with regularity and at intervals of, say, fifteen or twenty minutes, he will first inquire as to whether the bowels and urine have been evacuated? If so, he will not prescribe an enema, nor will he catheterize. If the labor is prolonged, he will assure himself from time to time that the urine is passing in quantities sufficient to keep the bladder empty. I consider it a mistake to catheterize too frequently, or at all unless it is absolutely necessary.

Before any internal examination is made a solution of lysol should be made in the large bowl, the pound of cotton carefully opened, and some tampons pulled off and dropped in the lysol solution. The physician having scrubbed his hands with a sterile brush, which he has brought to the house wrapped in wax paper, he now cleanses the external parts with the lysol saturated tampons. The lysol solution takes the place of soap and also acts as a lubricant to the hand. The physician now ascertains the presentations, the position, if possible, and the progress in labor. His judgment must tell him whether or not it is necessary to remain on the spot or whether he may call again in an hour or two. I would suggest that if there be dilatation the size of a dollar, that he had best remain. I would also suggest that internal examinations be made as frequently as possible. When there is full dilatation, the physician places his patient on the right side of the bed in the Simms' position, with the buttocks as close to the edge of the bed as possible, with the head and knees pointing toward the middle of the bed. He is to sit at the patient's back, on the edge of the bed. Some of the clean muslin is unfolded and put under the hips; a clean sheet is thrown over the patient; the night dress is pulled well up out of the way, and all other clothing is removed. I say all other clothing, because it is the habit among a certain class of people to be confined in an old skirt. I was about to say any old skirt,—apparently the dirtier the better. I have often wondered what is the cause of this habit, but have never been

able to come to any satisfactory explanation. The nurse is instructed to make a cushion to go between the knees of the patient. This cushion is made of an ordinary pillow rolled up as one would roll a sheet of music and pinned in a heavy bath towel. As the attendant sits on the side of the bed he has the following articles within easy reach: A chair or stool placed to one side or slightly back of him with the basin of lysol on it. The solution should be copious and should be warmed from time to time by the nurse, who will pour small quantities of boiling water in it, and should have floating in it a supply of cotton tampons. These tampons are used constantly to bathe the external parts. At the edge of the bed and near the foot the bucket is placed to receive the tampons. The small basin is also placed in a convenient position under the foot of the bed. There is a clean tea cup within easy reach, containing the following articles: A warm solution of boric acid; a wet cotton tampon floating in the solution; a pair of ordinary surgical scissors in the solution, and in the ring of the scissors a dry cotton tampon. The umbilical bobbin is also placed nearby. As the attendant sits in this position, these articles at hand, he is in full control of the situation. His left hand lies upon the abdomen of the patient and he is able to tell by touch, when the pains are coming—also their character and length. Unless the labor is unusually prolonged he should not leave his position. The woman, therefore, gains a sense of security; she feels that she is being helped and the labor is hastened. In my opinion the assistance that the attendant may give the patient by pressing on the fundus of the uterus at the time of the pains is a very important factor. I believe that if it were done constantly during the second stage of labor that the necessity for forceps would be very much less. As the child is born, the attendant also has full control of the birth of the head, and is able, by pressing on the abdomen with the left hand, to manipulate the head with the right hand and deliver between the pains, which lessens the danger of injury to the mother. When the face is born the attendant reaches to the tea cup and takes from it, first, the dry tampon, with which he cleanses carefully the eyes, nose and mouth of the child. Next he does the same with the wet tampon, then he assists in the delivery of the rest of the child. He then asks the nurse to open the envelope containing the umbilical bobbin, which he dips in the boric acid solution, and, with it he

ligates the cord at the proper time. He then delivers the placenta when he directs the contraction of the uterus with the left hand, taking his position, as before the birth of the child, on the edge of the bed. As the placenta is being born the nurse takes up the small basin, which, so far, has remained under the foot of the bed, and places it under the buttocks of the patient and catches the clots and after-birth therein. While this is being done the attendant, without leaving his position, examines the perineum, and, if there is no tear and there are good contractions, he gives the external parts their final washing with lysol. A sanitary napkin is placed in position; the pad which has been under the buttocks during this time is taken out and a new one slipped in its place.

In case there be need of perineal repair, I would recommend the following: First, an ironing board, which may be found in any household, is put across the bed under the wire spring, its ends resting on the side rods of the spring. The patient is twisted around so that she lies upon the ironing board, the buttocks near the edge of the bed. She may be placed on a Kelley pad or an improvised mat of clean muslin may be made. By the way, a Kelley pad is absolutely of no use at a confinement case in a private house, unless the woman is in this position, with the board under the spring. The attendant should have in his bag some leg holders, which he may apply, the nurse, or some member of the family, sits on the edge of the bed beside the patient and steadies the knees. In this position the perineum may be repaired most favorably, and I have a few suggestions to make in that regard. Use a No. 2 chromatized catgut, with rather a large size, heavy Kelley perineum needle. After inserting a dry cotton tampon in the vagina above the upper end of the tear, have the parts well washed with lysol solution. The suturing commences at the upper end of the laceration with interrupted sutures. It is my practice to use a 30-inch ligature, sewing over and over until it is all used up, leaving enough slack so that the stitches may be cut and tied after they are all in position. Before tying, the parts are flushed with lysol solution, and the tying commences at the bottom or external portion. For the first twenty-four hours there is a moist bichloride or lysol pad kept inside of the dry napkin. The woman is then put to bed and turned over to the care of the nurse, if she is a trained nurse. If, on the other hand, she is of the "granny" vari-

ety, she is given a solution of bichloride or lysol, with instructions to warm the same and drip some over the parts each time the napkin is changed. I would here say that the "granny" seems to be a necessary evil in obstetric practice, but the less she does for the patient, the better. If douching is necessary, or catheterizing, the physician, in the absence of a trained nurse, should do it himself. Concerning the use of douches, by the way, I would suggest that they be not used unless there are definite indications.

The umbilical dressing is best made of cotton, copiously sprinkled with boric acid powder. I say cotton because cotton dries into the cord and cannot be removed easily, whereas the gauze will probably fall off and if there is a granny on the case, heaven only knows what she may have on the cord at the next visit of the physician.

This paper will, perhaps, be criticised because I have not advised the use of silver nitrate or protargol in the child's eyes. However, I do not believe it good practice to drop anything in the conjunctival sac of a new-born child. If any good is to be gotten from such procedure it must be done immediately upon the birth of the face, and I contend conditions are not favorable at that time for this operation, for these reasons: The attendant's hands are saturated with lysol or bichloride of mercury solution; the face is usually covered with vernix caseosa, so that opening the child's eyes without injury, without especially trained help, is no easy matter. I believe that better results are gotten by simply cleaning them externally, first, with dry cotton and then with a mild antiseptic like boric acid. Of course, where it is known that the mother is suffering from an acute efflorescent gonorrhœa, these measures may be justified—even then I doubt if they are beneficial.

DISCUSSION.

Dr. Anna Johnston: I think the doctor made one serious mistake in the beginnig. He should not have read the paper to his wife. In cases of laceration I have made it my practice to repair the laceration the next day. If you wait until the next day the swelling will have gone out of the parts.

Dr. J. H. McClelland: There appears to be some good reason for the assertion made by Dr. Johnson, but I believe it is not surgically good. Stitches can be made so that there will be excellent

apposition. Then, in these twenty-four hours the wound has an opportunity of becoming glazed over and is an abundant field of absorption of septic matter. I would not be willing to postpone a repair for any reason the doctor has given. I have, however, repaired permanently after twenty-four hours, but the results have not been as good.

Dr. J. E. James, Jr.: I believe that a very important source of infection consists in the use of rags from the old rag-bag, and I do not think we are justified in using these dirty rags. The various drug houses put up an antiseptic package which is very cheap, and this will save us a lot of trouble. In cases where the family are too poor to buy it the doctor should do so himself. Another thing that I recommend is the use of dry tampons on the eyes after birth. In so far as the after-treatment is concerned I believe in the instillation of silver nitrate. It has been proved that this is the best practice and it should be used in the proportion of six grains to the ounce, followed rinsing with boric acid solution. This will do no harm. The instillation is controlled by the boric acid flushes and we are running a great risk if we do not use it. I agree with Dr. McClelland in regard to repairs of the perineum. Do not put the sutures in too tight. Simply enough to approximate the edges.

R. E. Tomlin, M. D.: Dr. Gay has presented for our consideration a number of important facts, and has given us some valuable suggestions. Any one attending midwifery cases well knows the difficulties occasionally presenting themselves, especially in reference to nurses and the protection of the parturient woman from infection. The seeming immunity of some women who are attended by what Dr. Gay is pleased to call the "granny nurse," many of whom are, to say the least, unintelligent, in this work, from infection and the many possible complications is really one of the world's wonders. My own plan is to cleanse as thoroughly as possible the parts adjacent to the parturient canal, removing, in part, or in toto the hirsute appendage. Rubber gloves are worn, the obstetric pad used, legholders when necessary. Germicidal discs in place of Bichloride, Lysol, Creoline or other similar antiseptic agents are also used. Vaseline is freely used, and every possible assistance given.

If the attending accoucheur is as attentive as he should be of the whole case, who the nurse is will not make so much difference. Of

course, a graduated nurse is to be preferred, if she can be employed by the family, but I have had quite a successful experience and the ordinary, or granny nurse, is the one most frequently in charge. The use of forceps, anæsthetics, etc., etc., must be a matter of knowledge and experience.

Dr. N. F. Lane: I would like to discuss the matter of the repair of the perineum, but have not time. In regard to the use of the silver nitrate in the child's eyes I do not use it except in cases of gonorrhœa. In such cases I think it would be criminal negligence if we did not use the silver nitrate.

THE TREATMENT OF RETROVERSIONS FOLLOWING LABOR.

N. F. LANE, M. D., PHILADELPHIA.

The treatment of retroversions following labor, is a subject that is not given the prominence it should have in our obstetrical and gynæcological teachings. If more interest were taken in this subject by those who practice obstetrics, there would be fewer patients running to the gynæcologist for treatment of this condition.

You all know the difficulty of treating successfully, I mean curatively, the ordinary case of retroversion, without the more or less constant use of a pessary, or the resort to operative treatment, and you also know the more or less unsatisfactory results of all methods of treatment directed to this condition in some cases. Taking the foregoing statement into consideration, and admitting it to be true, I do not know of any procedure that gives much more satisfaction to the physician than the cure of a displacement, be it acute or chronic, following labor.

There are a number of conditions that must be present to assure the successful treatment of these cases at this time, among which are the absence of adhesions and a fairly good pelvic floor. With the conditions present which will admit of the successful treatment of a retroversion, we should watch, very carefully, all patients whom we know to have had retroversion prior to pregnancy, for following labor is the time when a little care and patience will accomplish that which is, perhaps, impossible at other times.

These displacements are due to various causes, among the most frequent of which are a weak pelvic floor, or a subinvolution, due to an extensive laceration of the cervix, an infection or retained secundines. All these conditions mean a heavy uterus, which, in turn, means a tendency to prolapse and backward displacement. Like "the last straw that breaks the camel's back," so the extra weight of such a uterus, even though it be little, decides the position it will assume after confinement.

By considering, for a moment, the physiology of the puerperium, we shall be able to understand why so much more may be done for these cases at this time, than at any other. The uterus, after labor, by contraction and also by actual atrophy of its muscle fibres, becomes very much smaller, and it is just this fact that allows of the successful treatment at this time. The agriculturist trains his tree or vine with post or trellis, to assume the position he desires, and it is exactly so with the uterus and the obstetrician; he trains the uterus as it is growing smaller (if you will permit the expression) to assume the normal position and it practically grows there and is likely to remain there; in other words, the uterus will, probably, assume permanently (be it normal or abnormal), the position in which involution is completed.

Before considering the method of cure, let us see what may be accomplished in the way of prophylaxis, and you will pardon me if I digress from the subject we are considering, and refer somewhat at length, to the repair of the perineum immediately following labor, not that a perineal laceration necessarily causes a retroversion, but because it is often the lack of this supporting structure that causes a uterus with weak and relaxed ligaments to become retroverted.

All perineal tears should be repaired within a few hours of the time of the receipt of the injury. The last few years I have made a practice of waiting from twelve to twenty-four hours before applying the sutures, as I think I can coapt the lacerated muscles better when the tissues are less swollen, there is less congestion and bleeding, and the torn edges are more easily recognized. We all know there are many failures in the primary operation, and one reason for this is the fact that the torn edges are *not* accurately adjusted, because it is so difficult, at times, to see which is torn tissue and which is abraded or congested mucous membrane, the result being that

sometimes mucous membrane and torn muscles are approximated with non-union as the result. The fact that we occasionally hear some one decry the primary in favor of the secondary operation, is proof that the primary operation is too often a failure.

I think you will all agree with me in the statement that the results of the secondary operation cannot, everything being equal, be as good as the primary, for the simple reason that at the primary operation the muscles may be brought together just as they were before rupture occurred, while, at the secondary, it is almost impossible to do so even if the attempt is made. If, as good results are to be expected from the primary as from the secondary operation, the same care should be exercised in bringing the torn edges accurately together, and, above all, remember that failure is often, I may say, very often, due to the utter lack of any attempts at asepsis. In doing the secondary operation we are very careful to clean our hands, instruments, and the seat of operation, we cover the thighs with sterile towels, and we are especially careful to secure sterile suture material and to protect it from contamination by removing the pubic and vulvar hair. Now, why should we expect good results in the primary operation if we disregard these simple rules, which we know are so essential to success when performing the secondary. All these precautions requires very little extra care on the part of the obstetrician, the removal of the vulvar hair being the most troublesome and difficult part of the operation. I have often wondered how we could expect union by first intention, when watching a suture being dragged through the vulvar hair and, perhaps, drawing one of these little sources of infection into the suture track. Let us then be as careful when performing the primary, as we are when doing the secondary operation and our results will be quite as good and probably better, if union is not prevented by infection from the uterus. I appreciate the fact that there are certain instances in which it is impossible to get very good results, owing to the character of the laceration, which is difficult, and prolonged forceps cases may, from the traumatism of the delivery, result in more or less sloughing of the tissues, thus preventing union no matter how carefully the laceration be repaired; but it is not of these that I am speaking.

Until I adopted the plan of waiting a few hours before repairing a perineum, I was under the impression that the pressure of the head

and traumatism of the labor rendered the parts more or less insensible to pain; but I find the stitches can be introduced with just as little pain a few hours after, as they can immediately following the birth of the baby, and that the only pain usually complained of is from handling the parts and from the introduction of the skin sutures, and these latter are painful, even if introduced immediately upon the completion of labor. If the patient is under an anæsthetic, the perineum should be repaired at once, as the lacerated tissues can be exposed thoroughly and without pain; in fact, if the tear is very extensive it is always well to administer an anæsthetic.

Ordinarily, there is no attempt made to repair a lacerated cervix, primarily, unless there is hæmorrhage, although it would, no doubt, in many instances, prevent a sub-involution.

Another method to prevent a retroversion is to secure a good contraction of the uterus, not allowing the patient to get up until the uterus is in proper condition for the event. If the uterus shows a tendency to become retroverted before the time arrives, as described later, for the pessary treatment, the attempt should be made to keep it forward by postural treatment, requesting the patient to lie as little as possible upon the back. If, in spite of efforts to keep the uterus forward during the first two or three weeks of the puerperium, it should become retroverted, immediate steps should be taken to correct the displacement.

In making a plea for the early treatment of these cases I must, of necessity, make a plea for the use of that much abused instrument, the pessary; for it is the only practical means we have at our disposal for the correction of these displacements, and even this instrument cannot be used until there is a moderate involution of the vagina.

After replacing the uterus, select a pessary large enough to hold the uterus forward, always being careful to err on the side of the smaller instrument, if there is any doubt in your mind as to the proper size to select. Even when the correct size is chosen, more perseverance is needed than in the ordinary case, and it often requires considerable coaxing and frequent replacements before it will stay in its normal position. This is doubtless due to the lack of tone of the vaginal walls at this period, they being more yielding than in the non-puerperal state. When once the pessary holds the uterus for-

ward for a few days, the victory is usually won and all that is required is to watch the case from week to week, reducing the size of the pessary, if possible, as the vagina becomes smaller, and, finally, in six or eight weeks, discard it entirely and the case is cured. Such patients should, however, be examined occasionally for two or three months in order to avoid a relapse.

If the case be an acute one the cure should be permanent, and if it be chronic, if the conditions such as I mentioned in the first part of this paper are present, the cure should be permanent in the majority of instances.

In conclusion, I would urge those who may have such patients to treat, to have patience with them and not become discouraged, if, for the first few treatments the result seems in doubt. Personally, I have often replaced a uterus of this kind, selecting a pessary that I considered large enough, and at the next visit of the patient to the office, found the uterus again retroverted, this occurring a number of times; but, finally, as involution progressed, it has remained in place, much to the satisfaction of both patient and doctor.

The keynote, then, to success in the treatment of these cases is watchfulness and perseverance. Watch our patients after confinement for three weeks and thus *know* if there is a displacement, and if one is found persevere in the treatment for a *reasonable* time before giving up the ship.

DISCUSSION.

Dr. H. M. Gay: One or two things occurred to me while this paper was being read. One was the proper time for suturing the perineum. I have frequently noticed that while washing the hands and getting ready for the operation I would find on going back that the parts were agglutinated and would find a slight resistance. This means that the most favorable time for suturing is immediately. I do not believe that there is any more swelling if the suture is done immediately than if it is left until the next day. The difficulty in suturing in twelve to twenty-four hours is greater than at first. The parts tend to agglutinate at once and the beginning of healing takes place. You break this up and the chances of healing are very much lessened. Another point is this, it is my experience after suturing perineums that the parts should be absolutely left alone. Unless a

great deal of care is used it is impossible to make the repair without breaking up the adhesions. In the cases where I had an old granny nurse I got the best results, whereas trained nurses often pull the surfaces apart, thereby allowing the parts to become loosened and infection to creep in.

Dr. B. F. Betts: There is only one point in this paper with which I want to differ. That is with regard to the use of the pessary. The less we do in regard to manual treatment until involution is completed the better. If the pessary is applied before involution is completed we usually get poor results. At the end of the second week examine the patient carefully, replace the organ and then keep the patient on her side rather than resort to the use of the pessary. We should rely upon postural treatment rather than upon the use of the pessary.

Dr. N. F. Lane: I do not like to differ from Dr. Betts, because it upsets my theories. Of course, I use postural treatment, but, if, in spite of this, the uterus goes back, I think better results follow by using the pessary than allowing the uterus to become subinvoluted. The uterus is likely to lie in the position in which involution is completed.

THE USE OF SHORT FORCEPS.

J. R. SWARTZ, M. D., HARRISBURG.

Dr. Charles B. Meigs, in his Practice of Midwifery, published in 1838, introduces the subject of the use of forceps, by describing the numerous inventions of the ancients for expediting the births of children, but, unhappily, all their instruments were created with the sole view and intention of being useful to the mother and had no applicability to the child, except to extract it after depriving it of existence. The crotchet, described by Celsus, continued to be the model obstetric instrument down to the close of the fifteenth century. Dr. Hugh Chamberlayne, who practiced midwifery in England towards the close of the fifteenth century, constructed, probably, with his own hands, two curved pieces of iron, which, being introduced separately, were applied to the left and right sides of the head and then united by a pivot joint, by means of which the

two separate pieces were converted into a pincers or forceps; owing to the fact that the world was not allowed to know of the secret of the construction, it was not until 1733 that Dr. Samuel Chapman published a description of the forceps and to the present day modifications of form, and the size and mode of coaptation, have been changed to suit the fashion of many distinguished writers and practitioners. The evolution from the crotchet to the heavy, crude scissors of the Chamberlayne's, thence to the forceps of Palfin (in 1713) composed of two greatly curved blades, without fenestra, down to the modern instrument of Farnier, furnishes striking evidence of interest, for the welfare, of humanity.

The use of short forceps is one of many adjuncts for relief, in a case of tedious labor, and, while their application is limited to certain stages, at the same time neglect to take advantage of the aid they afford, is often due to the fear of appearing meddlesome, in the minds of the general practitioner, whereas, if used more frequently, the evident assistance given, will soon win the confidence of the patient and save hours of uncalled for suffering. Their use in my own practice has been so satisfactory and of so much apparent relief to women in labor that I am inclined to advise as well as to urge, their more frequent application. It is the too early application of mechanical aid that causes fear in the minds of the laity, but to offer the proper assistance at the proper time can do nothing but establish confidence of the patient and family. This confidence is reflected ot subsequent labors, when the physician is reminded of the relief afforded and the request is made for similar assistance.

Dr. Johnson, in the Fourth Clinical Report of the Rotunda Lying-in Hospital, London, for the year ending 1872, writing upon the use of forceps, says:

"Our established rule is that so long as nature is able to effect its purpose without prejudice to the constitution of the patient, danger to the soft parts, or to the life of the child, we are bound to allow the labor to proceed, but as soon as we begin to find the natural efforts beginning to fail, we consider we are in duty bound to adopt prompt measures to relieve the sufferer from her distress and her offspring from an immediate death."

It is right that we consider the opposite view and reflect upon the disadvantages, which *may* attend the interference advocated. I

should emphasize the fact that I am considering only the use of forceps in simple inertia, when the head is low in the pelvic cavity, and when all that is wanted is a slight visa fronto, to supplement the deficient vis ategro. The ues of the instrument when the head is resting in the pelvis, or in cases of deforimty, or before the os uteri is completely expanded, is an entirely different and much more serious matter and does not enter into the present discussion. The chief question to decide is, if there be sufficient risk to the mother to *counterbalance* that of delay. Assuming, therefore, that the practitioner is able to apply the forceps skillfully, is there any danger in their use? I think all who dispassionately consider the question must admit, that in the class of cases alluded to, the operation is so simple that its disadvantages, cannot for a moment be weighed against those attending protraction and its consequences.

The statistics of Churchill, where the report states *one in twenty cases were lost,* by the use of the forceps, were shown to be fallacious, by Hicks & Phillips, in their paper on tables of mortality after obstetric operations, where it was proven, in the clearest manner, that such results were not due to the treatment, but, rather, to the fact that treatment was so long delayed.

No more graphic example is furnished by history than the letter written by Dr. John Sims, in 1817, to Dr. Joseph Clark, of Dublin, on the death of the Princess Charlotte, of Wales, wherein he asked the question, "can any reasonable man doubt, that if the forceps had been employed hours and hours before, the result would, probably, have been different and that the life of the child destroyed, by the enormously prolonged second stage, would have been saved?"

The support given the woman is just that you would offer could the hand be introduced, so that with a well dilated cervix, the amniotic fluid discharged, a head resting against, or just beneath the arch, and no progress being made, with apparently strong pain, evidence of discouragement manifested in the woman, accompanied by lack of force in the expulsive efforts of the womb, the duty of the accoucher is to give *assistance* and to give assistance at once. With the hands and forearms thoroughly scrubbed, the forceps boiled, and until used, carefully protected, there is little danger of sepsis. Assistance of the nurse is required, to prevent contact with the bedclothes with the instrument, as well as your own hands, and while

the woman is allowed to remain in her usual position in bed, no exposure is necessary, the blades are slowly and carefully introduced to their proper position, on the presenting head. Slight traction is made only during the pains, the blades being released during the interval, that no undue pressure is made upon the head; after a few such efforts the head will descend upon the perineum, when the forceps may be removed and the labor terminated in the usual manner. This procedure is so frequently followed in my practice that, without appearing to be controlled by a fad, I have the most positive feelings of assurance that so much relief can be furnished that I am almost prepared to charge *negligence* when hearing of prolonged labors where *dystocias* and *false presentations* are absent.

There is no hasty dilatation, no danger of rupture of the soft parts if skillfully used; the unbearable calf cramps and the violent neuralgias of the sciatic are prevented. The woman ceases her restless moving about in sheer desperation to escape the intense suffering, and is only too anxious to aid you, in your endeavor to complete the labor and allow her to rest.

Chloroform is not demanded in every case and complete anæsthesia never, but of sufficient amount to allay nervous excitement, afford relaxation and allow you better control of your patient. Indeed, very little can be inhaled during the short time you are using traction.

I have endeavored to relate briefly the practice followed during a number of years, in the great majority of cases, and have found no reason to regret the aid I have been able to offer, nor to censure myself for being meddlesome.

DISCUSSION.

DR. N. F. LANE: As to the use of chloroform I feel that we should either give the patients very little or else put them completely under its influence.

DR. J. E. JAMES, JR.: As to the use of forceps in obstetric cases there are certain rules. One is threatened danger to the life of the fœtus, another a condition threatening the life of the mother, and a third, uterine inertia. There are a great many physicians who use forceps so that they can get off on some professional or social duty, but without having absolutely positive indications for their employ-

ment I think we are malpractitioners if we use them. We should give nature a chance. Every time that we introduce any foreign material into the uterus we are simply adding another danger of infection to the patient. If we know a case thoroughly and are with the patient constantly during the labor, we know when they are indicated and when not.

Dr. C. S. Raue: The subject of the use of the forceps does not interest me from the standpoint of the obstetrician. One of the most important questions is the ultimate effect upon the child. This probably has not been given as much mention as the effects upon the mother. We look upon their use as adding risk to the mother and do not look years ahead and think of the terrible affliction which is sometimes brought upon the children. Any one of us who have seen feeble minded children will realize what a terrible condition it is to risk an injury to the head during labor. I do not want to be misunderstood as giving you the impression that all these cases are caused by injuries during birth. However, we know that a great many cases of this character are caused by the use of forceps. One of the most important things to know is just when the forceps should be applied.

Dr. D. R. Harris: For the first twenty years of my life I did not use forceps at all, but now I have to use them more and more. Chloroform must be used because we do not want to add more surgical shock than necessary.

Dr. H. M. Gay: In my long experience—not ten years yet—I find that I use forceps much less frequently than at first. I saw several bad results quite close together, not of my own doing, but that of one of my associates. Nowadays I am very prone not to use them. I think we err a little on the other side. If the traction made on the child were outside instead of in, I think that we would get much better results in many cases.

Dr. Anna C. Clarke: I once had a case in which I called in a consultant, who tried this method of pushing down on the fundus, but with no results. Finally, we had to chloroform the patient and put on forceps. I believe a good deal of bad results can follow too much pushing on the fundus.

Dr. M. A. Wesner: The force of the uterine contraction is supposed to equal about two and a half pounds to the square inch.

Now, if a person gets his hands on the fundus the pressure will equal about two hundred pounds and this, I think, is entirely too great. I would think a while before applying one or two hundred pounds pressure on the abdomen.

Dr. Howard Terry, Jr.: Many cases I think have involuntary uterine contractions. There are cases in which the mother would resist the pains. One case in which I gave a little chloroform and applied the forceps we had two or three good pains and in this way hastened the birth.

Dr. J. R. Swartz: In my paper I was only giving you a history of cases in my own practice. I have never worked in a hospital. The forceps that I use are not intended for every case. The question when to use forceps is what your own experience tells you. When you try to practice you must meet conditions as they are brought upon you in the home. I never think of using the long forceps.

ACCIDENTAL ABORTION.

M. A. WESNER, M. D., JOHNSTOWN.

Abortion is the premature expulsion of the embryo or immature ovum from the uterus at any time before the end of the sixth month of utero-gestation. These expulsions may take place at any period within the time herein mentioned, but they are by far of the most frequent occurrence between the first and fourth months of pregnancy. Should they occur within the first month they are usually termed ovular; from the beginning of the second to the end of the third month, embryonic, and from the third to the end of the sixth month, fœtal.

The above title I have chosen in order to distinguish this kind of abortion, which is purely accidental and generally preventable, from that other form which is atrociously intentional and has for its object ruin and death. That kind where men and women skilled in the art of medicine and surgery cause the destruction of numberless human lives for money consideration. I hope that no one within the sound of my voice is guilty of this shocking crime in its wickedness and cruelty, the murder of unborn children. Beware of that kind of abortionist! He is a menace to civilized society. The

cowardly miscreant who would thus destroy the lives of unborn infants for a consideration is too vile to mingle with honest people. Beware of him, as he would not hesitate to destroy other lives, if the law but protects him, and use the stiletto of the assassin under cover of darkness.

The term miscarriage is often used to designate any form of premature expulsion from the uterus from the beginning of gestation to the end of it although it is merely given to conform with custom. Again some authors have divided this period into three stages as follows: Abortion from the beginning to the end of the fourth month; miscarriage from the fourth to the end of the seventh month and premature labor from the end of the seventh month and before the end of the ninth month. For all practical purposes, however, that period which includes the time of non-viability of the child if separation has taken place can be called abortion, that usually extending to the end of the sixth month, while that which embraces the time of its viability and prior to full term we shall denominate premature labor.

I have taken this subject for my paper, my friends, not because I consider myself peculiarly fitted for the elucidation of its underlying principles nor because I wish to leave the impression that I am thoroughly informed in all its indications, but simply to awaken an interest, a proper attention, a profound appreciation in the minds of my fellow physicians concerning this all important branch of the healing art. Instructions in our different colleges are very meager on this topic. I do not remember of hearing more than one lecture on this subject during my college days. To the general practitioner, it is a question of no uncertain importance. Doubly so, indeed, when we reflect upon the difficulties, the trials, the disappointment encountered in the treatment of such cases as they are presented to us.

In my opinion nearly all abortions can be avoided and the sufferings incident thereto obviated either before separation takes place or in the interval of these accidents if the properly indicated remedy is used. They all, like other diseases, are amenable to treatment, have their special pathology, and our duty is to correct their condition by the application of medicine. If at a loss to know what you shall prescribe, then search the Materia Medica and find your remedy. In order to be a skillful prescriber, it is incumbent upon you to be also a

good and faithful student, so that when confronted by an emergency like this you have sufficient knowledge to carry you over with honor and distinction. In homœopathic medicine, as well as elsewhere, your pathway will be strewn either with roses or with thorns, just as you shape your destiny by the power and force and beauty of close application and the efficacy of eternal vigilance.

When called to a case of abortion we find the symptoms usually alarming, at other times we have only the signs of ordinary labor, pains coming and receding with perfect regularity attended with little or no hæmorrhage. In the majority of instances, however, your patient will present the appearance of collapse indicated by her general pallor, her color, which is as white as the driven snow, her pointed nose, her firmly closed lips, the damp of prostration covering her face, her cold hands and feet, all the result of excessive loss of blood. Very often the fœtus has come away, although, at times it is still found within the cavity of the uterus and refuses to leave without forcible assistance. The cardinal principle of every obstetrician should be the removal of anything and everything that has an injurious effect on the health of his patient. If the fœtus or the placenta, or both, cause serious hæmorrhage, or become offensive, they act like foreign bodies and, if possible, they should always be removed. If removal should seem impossible I would certainly tampon the vagina, a proceeding which checks hæmorrhage and gives ample time for the os uteri to dilate. But an offensive mass should be immediately removed and antiseptics used no matter what special effort may be required for its accomplishment. However, these matters must be governed in all cases by good sound judgment and a sufficient supply of common sense. I once had a case where there was no hæmorrhage of any consequence whatever after removal of the fœtus, the placenta being firmly adherent, I left it remain until it came away, which was just five days, and the patient had first a dose of Pulsatilla high, followed next day by a dose of Sulphur high. And there were no evil effects of any description, pains and contractions coming on with as much regularity as you find them in ordinary labor. Furthermore, I have frequently permitted an adherent placenta to lie in position from twenty-four to seventy-two hours when there was little or no hæmorrhage after removal of the fœtus in order to give the indicated remedy an opportunity to do its work

which it did most effectually. If you can not meet the indications then use the blunt curette and do not desist until your efforts are crowned with glorious success.

If the fœtus is dead before an abortion takes place you seldom have a great loss of blood, the uterus being better prepared for the ordeal when it comes. This kind can usually be traced to some fault in the system and, no doubt, can be remedied, while the other form mentioned above is solely dependent upon uterine or ovarian affection. Following this ideal I shall now give you a few cases of each kind, with their treatment:

Case. I.—This was a preventive case and, of course, I used the remedy to that effect. Mrs. S., aged 25 years, dark hair, dark eyes and a dark complexion, applied to me for treatment at the end of her first month of pregnancy. She had no living children, but had two abortions, each at the end of the second month. She had frequent desire to urinate, with brick dust sediment in urine. Was irritable, had constipation and was fond of beer. Stopped the beer and gave her Nux vomica high infrequently repeated and continued treatment for four months, but prescribed no other medicine. This broke the spell for the end of the second month. She had no more trouble and at the end of her term gave birth to a fine, large boy.

Case II.—The first case of actual abortion I was called to attend was, to say the least, a genuine surprise to me. It was a cold night in midwinter at two o'clock A. M., when a boy came for me to go three miles through a blinding snow storm to see his mother, who was sick, but he could give me no idea of the character of her trouble only to come quickly. I hurriedly went without making special preparation for anything more than an ordinary disease, but finding, upon my arrival, the true condition of affairs, I concluded to end the whole trouble before my departure. This woman had advanced to the end of the fourth month of pregnancy, when fœtus, which was living, came away without much warning and the hæmorrhage was simply awful. I could hear the blood running in a stream into a slop jar under the bed. Whatever I was going to do had to be done without ceremony, as there was not time to consider or to send away for a supply of instruments. That was out of the question. But with my right hand forced, or squeezed, into the vagina and my two forefingers up in the uterus, at the same time holding

it firmly down with my left hand pressing on the abdomen I removed the placenta all in one piece. After that there was still a plentiful supply of blood flowing away. Next I took not less than a gallon of ice cold water, held it about a foot above patient's abdomen, let it run down in a gentle stream on the external uterine region until the vessel was empty. This settled all hæmorrhage, patient was placed in a dry bed and she made a splendid recovery.

Case III.—Now we will have an entirely different case to consider. This lady had dark hair, dark eyes and a fair complexion, and was 32 years of age. When I attended her in labor she gave birth to a small, shriveled, partly decomposed fœtus, which must have been dead, at least, three weeks, being at that time somewhere between the fifth and sixth month of gestation. I remember having attended the same woman two years before with a like result—a dead fœtus partly decomposed and about the same in size and appearance. She told me she had had a similar misfortune one year before, making three in three years, and all between the fifth and sixth month of utero-gestation. They all presented the same general aspect and the story of their early blight and subsequent death was easily told. Besire these she had given birth to two children at full term, a boy and a girl, both of whom died before they were eight months old, and, if she informed me correctly, cerebral trouble carried them away. There certainly was a case that demanded prompt and immediate attention. The first thought that entered my mind was the fact of those frequent pregnancies and how to avoid them, and, in consequence, she was instructed, after recovery, to refrain from intercourse, at least, seven or eight months in order to give her sufficient time to recruit, a rule which she promptly obeyed. After leaving her bed she was troubled with gastric derangement and constipation and she received Nux vomica 6, one dose every evening at bed-time for the next two weeks, followed by a few doses of Sulphur high. That condition being corrected she took Calcarea carbonica 6, once every two weeks at bed-time and in the evenings of the remaining thirteen days of the two weeks she had blanks. You will observe now that after the use of Nux vomica there were no symptoms in the case and hence I prescribed this medicine entirely on the history of the patient, her general appearance, the fate of her children, and her family history. Everywhere I could hear the shout of Calcarea carbonica.

She was instructed to continue her treatment until she discovered the existence of pregnancy and then inform me of the fact. In this, however, she was somewhat deceived and she did not report until some time between the fourth and fifth months of gestation. Her menses having continued until the end of the fifth month she was not aware of her existing condition, nor were there any symptoms to enable her to determine the exact state of herself till she felt the fœtal movement. This oversight was rather disappointing to me, as I intended to make some change in the treatment as soon as the fact of gestation was established. Still, however, as the mistake was unavoidable, I concluded to make an effort to attain the best possible result, as there was, as yet, left sufficient time to grow a good, sound homœopathic baby. Accordingly she was then given Silicea 6 every evening for one week, the following week she had no medicine, and on the third week she took Calcarea carbonica. This method was continued through the balance of her term, always giving a week's time between the two medicines. When the time of parturition came she was delivered of a fine, healthy boy, the event taking place just nineteen months after the last abortion.

Two years after this one the lady called on me again for treatment, she having received no medicine in the meantime, and this time she detected her condition of gestation and she was placed on the same treatment as before through the entire period, at the end of which she gave birth to one of the finest homœopathic girls I ever saw, and she is still keeping her record for vigor, vitality and vim. A third pregnancy was treated in the same way with a similar result, the product being another boy. These children are still living, bright and interesting, the pride and joy of their mother, their father having died, and the triumph of Homœopathy, for this and this alone saved them from a premature grave.

We will now take three more examples of a somewhat different character:

Case IV.—This is Mrs. E., aged 32 years, with light hair, light eyes and a light complexion. When I first saw this patient she had been confined on her back to bed for one week with a constant bloody, very offensive discharge from the uterus. She had employed an allopathic physician, who saw her just once and his advice was for her to remain in bed and I failed to see how she could do other-

wise. Her temperature was 102°, pulse 110, she was pale, weak and emaciated and her whole appearance indicated a condition of septic poison occasioned both by loss of blood and absorption of the products of putrefaction within the uterus. My first effort was to empty the uterus of its offending contents, which was accomplished with little difficulty, as the whole mass was in a state of decomposition with all attachments severed from the uterine walls. Then we had in this case putrescence of the uterus; a distended abdomen, with little or no pain; discharge from the vagina offensive mixed with blood; burning hot fever and vomiting. On account of these symptoms she was given Secale 6 in water every hour for the next forty-eight hours. Beside this a uterine douche of Calendula in warm water was used morning and evening. At the end of that time temperature fell two degrees and patient's condition was somewhat improved. The next twelve hours she had blanks and temperature came down to normal. After that she took Baptisia not so frequently repeated and douche was continued. These were all the remedies she took and in seven days from the time I first saw her she was discharged and able to leave her bed and sit in a chair. In addition to this, patient had milk diet, an enema every second day and a warm bath every day.

Case V.—This lady is not, as yet, over the ordeal of parturition, but I expect her to go right on to full term. She has dark hair, dark eyes and a dark complexion and is twenty-one years of age. This is her third pregnancy. About two months ago, when advanced to the end of the fifth month she came to me with the following symptoms: Pressing toward the vulva, pain in back, flushed face, red eyes, heat in the head and considerable discharge of bright-red blood from the vagina, the whole trouble, when summed up, indicating an abortion. I gave her Belladonna 12 and my advice was that she take her bed, which she did. Next day there was a decided improvement in her case and all went well for a time. Two weeks ago she came to me with the same trouble, only in a different form. In addition to a discharge of blood she also had some pain in the uterus, cramps in fleshy parts of thighs and legs and fingers of both hands. Cuprum metallicum 10 settled the whole affair and she is still on her feet.

Case VI.—Here we have an entirely different case. Mrs. B., aged 34 years, with dark hair, dark eyes and a dark complexion was

attended by myself five times in three years for abortion. In this case the contents of the uterus were quickly discharged, followed by profuse hæmorrhage of bright red blood with great prostration, constant nausea and vomiting and intense nervous excitement. In every instance these attacks yielded to *Ipecac.,* without the assistance of other means, and the hæmorrhage was speedily checked. In the meantime this lady received Cimicifuga high infrequently repeated on account of rheumatic tendencies and neurasthenic symptoms until finally she was sufficiently improved to retain a fœtus to full term and that process put an end to her hæmorrhage.

Case VII.—Mrs. B. and Mrs. M. were exactly alike, with the exception that one abortion occurred at the end of the first month and the other at the middle of the third month. Each had a retained placenta with very active and abundant hæmorrhage of bright red blood. To both I gave Sabina, removed their placentas in scraps with a blunt curette and the flow ceased without further trouble.

Diet is often a very important factor in the after-treatment of abortion and I wish to call your attention to a peculiar case that came under my care a few years ago. This woman had an abortion at the end of the second month. There was nothing strange about it, only that one week thereafter she could not retain food. Everything was ejected, even water, and our modern digestive ferments were of no consequence whatever. They all came back as soon as swallowed. But there was no vomiting unless something was taken into the stomach and the different remedies did not control it. Finally, after repeated efforts, she was ordered the old-fashioned butter milk, which immediately had the proper staying qualities, as none of it was ejected and my patient lived and feasted on her strange diet for seven weeks, taking two quarts in twenty-four hours, and in the end she made a splendid recovery.

I might add for your information that this was the lady's first effort and that she has since given birth to two children, at full term, which are still living. I have ordered butter milk a number of times with decided advantage.

In all the above cases, my friends, I have endeavored to meet the proper indications and prescribed in accordance with the symptoms, which is the only method of practicing Homœopathy successfully. In this manner you will produce a cure where the empiricist, the al-

ternationist, the combinationist, and many other materialists have egregiously failed. The symptomatic prescriber is still in evidence in our school and with a proper knowledge of pathology he is the only physician who can cure his patient in a scientific manner, the only real friend of Homœopathy, and on him and him alone devolves the duty of protecting and defending its interests as well as watching over the destinies of this grand system of medicine so that it may ever continue and the public taste the complete fruition of its happy usefulness.

REPORT OF THE

SECTION OF GYNÆCOLOGY.

Extra Uterine Pregnancy, by C. I. Wendt, M. D.
Ovarian Cysts, by E. P. Clark, M. D.

EXTRAUTERINE PREGNANCY.

CHARLES I. WENDT, M. D., PITTSBURGH.

Mrs. B——; age, 29 years; married two years, had missed one period. While washing she was seized with sharp, colicky pains in the left ovarian region, causing her to faint, but she soon revived and the next day was able to be about the house. At this time she noticed that her sickness, which was due, had come on, and attributed her pain to this cause and thought no more about it. However, the flow was scanty and painful. The pains were not as they usually were and she had a weak, dragged out feeling. On the third day, while at the ironing board she was again seized with a sharp colic pain, causing her to scream and fall on the floor. About four hours later her husband came to me and said she had this pain; that while she did not now complain he did not like the looks of her. She only wanted to be left alone and her face was white.

I immediately called on her and found her lying in bed, face white, lips bloodless, a faint, thready puse of about 150, no complaints to make except that she wanted more air. An examination of the abdomen revealed tenderness over the left broad ligament and some fluctuation. I ordered a rectal injection of three pints of normal salt solution given while I telephoned for the ambulance and my assistant. The foot of the bed was raised twelve inches, the legs bandaged as high as possible. By this time my assistant having arrived, we injected one pint of salt solution under the skin of the abdomen. In a few minutes the ambulance was at the door, and with hot water bottles packed around her, she was driven to the hospital, where she was immediately place on the operating table. While the abdomen was being scrubbed the anæsthetic was begun and

preparation for intravenous injection. In a few minutes all was ready and while the abdomen was being opened, salt solution was poured into the circulation. There was no pulse at the wrist. Thirty-two ounces of salt solution with fifteen drops of adrenalin were administered. The muscles of the abdominal wall were bloodless and when the peritoneum was exposed it was seen to be black. Upon opening the peritonuem bright red and clotted blood spurted forth. The incision was rapidly enlarged and handfuls of clots quickly scooped out; the uterus brought up and the left fallopian tube grasped close to the fundus of the uterus. On examination a ragged tear was found in the tube about three-quarters of an inch from the uterus, on the side opposite the broad ligament, and a fair sized artery was still spurting blood, the tube was tied off and excised, the ovary not being pathologic was allowed to remain. This done the abdomen was cleansed of the clots, about three pints in all being taken out, and washed with salt solution, as much as the abdomen would hold, being left in. The wound was sewed up in separate layers and dressings and adhesive straps applied and the patient put to bed with a fairly good pulse of 130. During the night she showed steady improvement and while somewhat anæmic, she was so well on the eighteenth day that I discharged her from the hospital. Subsequently she became pregnant, and I delivered her of a healthy child.

I do not propose to take up your time by recounting the causes and locations of extrauterine pregnancy, but will discuss briefly the question of when to operate.

In cases of tubal pregnancy with rupture or abortion, the quantity of blood in the peritoneal cavity, at times may be very great. The torn or raw portion of the tube will go on bleeding for a more or less indefinite time, or the bleeding may cease for variable periods. It may recur while the patient is at rest and has even occurred while the patient was asleep. It is more liable to occur after some slight exertion or after an examination, no matter how carefuliy carried out. In the majority of cases the amount of blood effused into the abdominal cavity is not so great as to directly endanger the patient's life. The symptoms attending the extravasation of the hæmorrhage, may the quantity be less or great, are very similar. The degree of pallor, the collapse and the pulse may be the same. However, in

case of a slight hæmorrhage, reaction would occur within a comparatively short time. The collapse in these cases is due more to the shock attendant upon the impact of the blood upon the peritoneum rather than to acute anæmia. In these cases the time of operation is not very important, a few hours or a day may not endanger the patient's life and may give time for re-action and preparation of the patient. However, in practice, the emergency patient usually makes an equally satisfactory recovery. Five per cent. of the cases are of the severe type, the tragic or cataclysmic. In these cases the amount of blood is so great as to fill the entire abdominal cavity, pushing up the diaphragm and interfering with the functions of the heart and lungs and placing the life of the patient in the greatest danger. In operating upon these cases the abdominal wall resembles that of a corpse. The tissues being practically bloodless, the peritoneum is dark colored and bulging outwards and when incised the blood spurts out with considerable force. Patients are rather apathetic, and partly or wholly unconscious or restless and in great anxiety, the countenance is ashen or deathly white. The mucous membrane of the lips and eyes are completely blanched and the pulse is very rapid, soft and thready, or totally absent at the wrist. Following the shock and diminished arterial tension incident to the rupture, the tendency to the formation of the clot and the consequent arrest of the hæmorrhage is increased. The amount of hæmorrhage will depend somewhat upon the size and location of the rupture; if it is over the implantation of the placenta or of a considerable sized vessel, it may produce a hæmorrhage of such gravity as to produce death, before any active measures could be undertaken. Under the decreased tension and shock the bleeding vessels may be occluded by a clot and further hæmorrhage arrested, *but the surgeon has no assurance that the favorable termination will result in the case under observation.* Measures which would ordinarily be employed for rallying the patient from profound shock are reprehensible here, as the only hope for the patient outside of operation is with decreased vascular tension, the clotting of blood in the bleeding orifices will become so firm that it will act as an efficient barrier against further hæmorrhage. From the instant that hæmorrhage begins the mother's life is in most imminent danger and in a large percentage of the cases unless laparotomy is performed at once re-

current hæmorrhages, more or less severe, take place, increasing the danger under which the patient is already laboring. Added to this we have the fact that the fœtus and placenta have become *foreign bodies* in the *mother's abdomen,* which must be dealt with later on under less favorable conditions. It is contended by those who favor delay under such conditions that the subject rarely dies as a result of the first hæmorrhage. It is also contended that, analogically, subjects of hæmorrhage from the stomach or as the result of typhoid perforation or from uterine fibroids rarely died at once. This is true, but in the case of a typhoid perforation the operation is usually done at once, and the surgeon does not wait for a second perforation. Expectancy enables us to secure better surroundings, more instruments and more competent assistants. This is the argument of the surgeon who operates only in the well-appointed hospital amphitheatre. However, while these things contribute greatly to the comfort of the surgeon, they are not necessary, provided that the field of operation can be sterilized.

The ideal case of extrauterine pregnancy is the one recognized before a rupture or abortion. In every case of pain we should take a careful history, make a careful examination, make *an exact diagnosis if we can,* but do not sacrifice the woman's life from lack of sufficient care. The tubal pregnancy is a malignant disease, its cells having the same power as cancer cells to enter into blood vessels and cause fatal hæmorrhage. It should be removed as soon as suspected. In these days of exploratory laparotomy there is no more risk in opening the abdomen for diagnostic purposes than in the expectant plan of diagnosis, where the physician waits until rupture occurs before making a positive diagnosis. Personally, I am in favor of immediate operation in cases of tubal abortion or rupture.

DISCUSSION.

Dr. J. H. McClelland: I really believe that there is not much to be added except to endorse certain principles laid down for the guidance of surgeons in these abdominal accidents. It is true that there are cases where you may wait, and with great propriety, a few hours or even a day, but to my mind in almost every case there is more danger in waiting than in proceeding at once to discover the nature of the difficulty, then to apply proper treatment.

I believe that it is better to operate almost immediately. Measures can be taken to recover the patient from collapse or shock, but the operation itself, to my mind, ought to be done with promptness and then with every reason to hope for success.

OVARIAN CYSTS.

E. P. CLARK, M. D., PITTSBURGH.

The bimanual examination of pelvic conditions is, perhaps, the most neglected or the most unskillfully accomplished of any branch in medicine, especially by the general practitioner.

This is, perhaps, due to poor training at college or lack of sufficient experience. If, however, he knows the normal organs when he feels them, and on discovering a pathological mass of any kind, will refer his patients to a specialist, he is, at least, a safe man.

The specialist, however, has a duty to perform, which must be more accurate. The tyro who opens every abdomen because he feels a foreign mass without faithfully trying to differentiate just what kind of a mass it is, is as unscientific as the old saying, "If you can't feel an ovary or tube, it must be normal."

When the gynæcologist suspects an ovarian tumor, he must carefully note four points: First, the consistency; second, its margins and limitations; third, any pedicle formation; and fourth, its movability.

The vast majority of ovarian tumors have a soft, spongy feel, which is characteristic, and once felt is seldom forgotten. But this does not always obtain. If the walls are tightly stretched from inside pressure, or if composed of multiple cysts or an interlocular cyst, the tension may be so great as to produce a hard feeling. On the other hand, fibrous tumors with breaking down of tissue may give a cystic feel.

The margins of an ovarian cyst are definite and easily defined, whereas, a peritoneal exudate is flat, has no clearly defined margins separating it from the neighboring organs. The exudate in parametritis, when broken down, may be cystic in feel, but it runs over to the uterus or surrounds the uterus, the finger cannot be inserted in between them. Then, too, the abdominal wall is not pushed forward

as in ovarian cysts of medium or large size. Peritoneal exudate gives a tympanitic percussion note because the bowels are pushed anterior to it, whereas the cyst rides anteriorly, producing dulness, and, finally, the history of previous inflammation points toward an inflammatory exudate.

The pedicle connection is a very important means of diagnosis. Great stress is laid upon its value by German surgeons, especially by Doctor Winter, of Berlin. Pedicles are usually thought of as belonging exclusively to fibromata, but the ovarian ligament forms a pedicle which may be of great assistance in making a diagnosis. Fibroid pedicles may be thin, but they are usually thick or wider, have more of a fleshy feel and are quite easily felt. If traced to the uterus it may be attached to any part of this body, whereas the ovarian ligament is thin and membranous and very difficult to feel, but it always runs to the fornix of the uterus. Fibromata also usually produce a greatly lengthened uterus, as shown by the sound. A uterine heart murmur or souffle is often present, and with interstitial fibromata the round ligament sometimes can be felt through the abdominal wall, as it rides in front of the tumor.

We are sometimes aided in feeling the ovarian ligament by means of an assistant, who pulls up on the tumor through the abdominal wall. This puts the ligament on the stretch and makes it more easily differentiated.

Intraligamentary tubal tumors and ovarian tumors are often impossible to differentiate.

The movability of a tumor is particularly valuable in diagnosing intraligamentary cysts. Other forms of cysts may be immovable when bound down by adhesions, but these give severe pain when put on the stretch. Intraligamentary cysts are immovable or slightly movable downward or they move with the uterus and the tumor is so clearly allied to the uterus that the finger cannot be inserted between.

Intraligamentary cysts develop deep in the pelvis and push the uterus to one side, or, if bilateral, the uterus is pushed up over the brim of the pelvis.

Ovarian tumors no larger than the size of an egg should not be operated without repeated examinations, because we may be dealing with an enlarged unruptured Graafian follicle.

Tubal pregnancy is to be differentiated by the physical examination and the history of the case. An unruptured pregnancy may resemble a cyst. The sudden pain and collapse does not occur until rupture, therefore the symptoms of delayed menses followed by intermittent or continuous hæmorrhage usually occurring in a woman who has been sterile for some time are certainly more important guides than pain and shock, especially in differentiating from ovarian cysts.

Tubo-ovarian cysts have a history of previous inflammation. The mass is irregular in shape; is in the form of a retort and seems to communicate closely with the fornix of the uterus.

Pyosalpinx, hydrosalpinx, hæmatosalpinx may be mistaken for ovarian cysts, but not if the margins and the pedicle formation, together with the history, is carefully followed out.

It seems impossible to conceive how a full bladder, a pregnant uterus, tumors of the spleen, liver or pancreas, could be mistaken for ovarian cysts, but such mistakes have occurred. The writer has examined an enlarged spleen, which was mistaken for pelvic tumor.

If we keep in mind, however, the consistency, the margins or limitations, the pedicle formation, the movability, and, I might add, the subjective history; and if we examine for each of these slowly and carefully, I believe we will make few mistakes in the diagnosis of ovarian cysts.

REPORT OF THE

SECTION OF PÆDOLOGY.

A Review of Some of the More Important Clinical Methods of Interest to the Pediatrist, by C. S. Raue, M. D.

The Importance of Estimating the Caloric Value of the Diet in Infant Feeding, by E. L. Clark, M. D

The Heritage of the Innocents, by I. D. Metzger, M. D.

A REVIEW OF SOME OF THE MORE IMPORTANT CLINICAL METHODS OF INTEREST TO THE PEDIATRIST.

C. S. RAUE, M. D., PHILADELPHIA.

In reviewing so broad a subject as clinical methods it will be impossible in a paper of this kind to do more than call attention to some of the phases of clinical diagnosis which appeal especially to the pædiatrist. At the same time I shall endeavor to show that "laboratory methods," so-called, are by no means so complicated and difficult to carry out as is usually supposed, and that the physician who fails to employ these methods in his daily work is depriving himself of invaluable assistance.

Let us first consider the subject of *the urine*.. Few physicians can be accused of neglecting to examine the urine of their adult patients, but in the case of children this is too frequently done on the ground that renal conditions are exceptionally rare. Granting this, it is equally true that the urine gives us valuable information in regard to conditions entirely outside of the kidneys; for example, metabolic disturbances and intestinal autointoxication. Again, many cases of cyclic albuminuria are overlooked by assuming this stand, to say nothing of an occasional case of diabetes. The importance of examining separate specimens of day and night urine is exemplified in the case of cyclic albuminuria; here the urine passed after a night's rest in bed is negative, while that passed during the forenoon, after being up and about may give a distinct reaction. The same may be said concerning the separate estimation of the day and night urine in regard to the amount passed. When the night out-

put exceeds the day output we speak of a "nycturia" (Quincke). Such a condition indicates a grave circulatory disturbance in the kidneys, and may be the first sign to call our attention to a hitherto unexpected heart affection, *e. g.*, adherent pericardium.

Albuminuria is relatively common in early life, but actual nephritis is, perhaps, not so common as some clinicians are disposed to believe. Carefully conducted autopsies have shown that the presence of albumin and casts in the urine in childhood does not so uniformly indicate nephritis as in the case of adults. Thompson (*Archives of Pædiatrics,* May, 1908) did not find nephritis in a single case in which albumin and casts were seen during life. The pathological changes are usually simple degenerative ones, exudation and proliferation are rarely encountered. On the other hand, slight or moderate degenerative processes and disturbances of circulation capable of producing albuminuria are very common.

The study of the ethereal sulphates, of which group indican is, perhaps, best known, is too often neglected. It is true that the indican represents but a fractional part of the total output of the conjugated sulphates of the urine, nevertheless it is a fairly good index of the degree of absorption of the products of intestinal putrefaction which are paired with sulphuric acid in the liver. Putrefaction processes outside the intestinal canal, for example, empyema also cause indicanuria. The test I usually employ is as follows: Five cubic centimeters of hydrochloric acid, to which a few drops of nitric acid have been added, are mixed in a test tube with one cubic centimeter of urine. A blue color reaction results and the indican may then be separated by shaking with chloroform. The rapidity with which the color develops is a fair estimate of the amount of indican present. The test for the etheral sulphates is of little value unless a quantitative estimation is made.

The question of acetonuria is an interesting one. When the acetone bodies are present in appreciable amount we are confronted with a condition of acidosis, or acid autointoxication of the system. A compensatory increased ammonia excretion goes hand in hand with this acidosis. Unfortunately the quantitative estimation of ammonia in the urine requires both time and some technical skill, for which reason it does not lend itself to general use.

Acetonuria, as a rule, appears clinically in infancy in conjunction with intestinal disturbances caused by excessive fat feeding. This

leads to secondary metabolic disturbances of which acetonuria is the clinical evidence just as glycosuria is the out-spoken sign of a perverted carbohydrate catabolism. The mother substances of acetone are oxybutyric and diacetic acids. It is probable that they are derived from the carbohydrate radical of the proteid molecule, which is split as a result of deficient carbohydrate assimilation. Acetonuria, therefore, also appears in inanition and in diabetes when an absolutely carbohydrate free diet is persisted in.

Another possible source of the acetone bodies is the body fat when this is oxidized in the absence of sufficient carbohydrate. Shaffer (Jour. A. M. A., September 19, 1909) points out the fact that fat individuals are comparatively poor subjects for typhoid fever and other infections in which increased oxidation takes place, and that in such cases acidosis is a frequent symptom.

The test for acetone must be performed while the urine is fresh, as this substance is volatile. To several cubic centimeters of urine in a test tube add an equal amount of freshly prepared solution of sodium nitro-prusside, to which a drop of sodium hydrate solution has been added. The mixture becomes red and then rapidly fades. The addition of glacial acetic acid gives a purple color when acetone is present.

Diacetic acid is detected by adding neutral ferric chloride solution to the urine until the phosphates have been completely precipitated, filtering and again adding ferric chloride to the filtrate. A deep red color reaction indicates diacetic acid. We should be certain, however, that the patient has not been taking salicylic acid or salol, as these substances produce a similar urinary reaction.

The Fæces.—The examination of the stools is a subject that presents more difficulties and fewer practical results than almost any other clinical methods. The bacteriologic examination requires expert technique and is rarely of clinical value. The microscopic examination for the ova of the various intestinal parasites stand the test for occult blood are perhaps the two most important features in the study of the stools. Occult blood is not so common in children as in adults because it is more frequently associated with malignant disease than with any other condition. With tuberculous ulceration it is rarely associated, while in typhoid fever a hæmorrage is usually of sufficient magnitude to produce visible blood in the stools, although the presence of occult blood in typhoid is looked upon by

some as a danger signal foretelling gross hæmorrhage (Emerson). The test is performed as follows: Liquify stool with water and extract the fat with ether, pour off the latter. To the remaining fæcal matter add one-third of its volume of acetic acid and then extract again with ether. To this ethereal extract add an equal volume of an alcoholic solution of aloin and then treat with ozonized turpentine or hydrogen peroxide. The reaction is a cherry red color. Guaiacum gives a blue reaction.

Gastric Contents.—For a rational understanding of gastric disturbances an analysis of the gastric contents is necessary, consequently a test meal must be administered. Milk cannot be used, owing to its affinity for hydrochloric acid. Barley water or a broth made with barley or rice (strained) should, therefore, be prepared. As a rule, the meal should be withdrawn three-quarters of an hour after its administration, otherwise the stomach will probably be found empty. A soft rubber catheter with a piece of glass tubing inserted into one end will answer the purpose of a stomach tube. Having obtained the specimen, note its general appearance, the presence of curds from previous feedings, mucus, blood. The odor may suggest the presence of butyric acid.

Filter the sample, and if the filtrate gives an acid reaction with litmus make the following tests:

Free Hydrochloric Acid.—Add to a measured portion of the filtrate a drop of one per cent. alcoholic solution of dimethylamidoazobenzol, and tritate the mixture with deci-normal sodium hydroxide solution until the color changes from red to yellow indicates the end of the reaction.

Combined hydrochloric acid, acid salts and organic acids may be conveniently estimated together in terms of hydrochloric acid. This is accomplished by adding to the sample used in the above test a drop or two of an alcoholic solution of phenolphthalein, and continuing the titration with the deci-normal alkali until the solution assumes a faint pink tint.

Total Acidity.—This is determined by adding together the results of the tests for free and combined acid. The analysis is simplified and facilitated by making use of the author's acidometer. (See Hahnemannian Monthly, May, 1903.)

Absence of hydrochloric acid is found in true cases of marasmus, and is of both diagnostic and prognostic value, as I have pointed out

on a previous occasion. Lactic acid is usually found in association with other organic acids, and occurs especially in cases of chronic indigestion from catarrh or gastric dilatation whenever there is a diminished secretion of hydrochloric acid. The test for lactic acid is known as Uffelman's test, and consists of a very weak watery solution of ferric chloride with a few drops of five per cent. solution of phenol added. The mixture is of an amethyst color. Lactic acid produces a canary yellow reaction.

The Blood.—A complete and elaborate blood examination is necessary only in special cases. There are, however, a few simple procedures in the study of the blood which are of immense practical value and without the use of which much of our practice becomes mere guesswork. Every practitioner should at least be able to determine whether or not a patient is actually anæmic, for appearances are deceptive, and he should be familiar with the malarial plasmodium and understand the method of detecting it. A blood count is not always necessary to determine the presence of leucocytosis, for when the white cells are markedly increased a properly prepared blood smear reveals this fact to the experienced observer. Perhaps more important than any of these data is the differential count of the various cells present; I would here also include the detection of abnormalities in the size and shape of the red corpuscles and the presence of nucleated red cells. After one has familiarized himself with the appearance of the normal blood elements the abnormal cells are readily recognized.

The estimation of the percentage of hæmoglobin, which is a fairly good index of the degree of anæmia present, may be performed in a few second by the Talquist scale. This is a rough clinical test, not sensitive enough for following accurately the progress of a case from week to week, but of sufficient accuracy at least to determine the degree of anæmia. Dare's hemoglobinometer is a convenient instrument requiring very little more time for making the test, and is sufficiently accurate to detect variations of a few degrees, such as we should expect to find in a case under treatment.

The leucocytes are best studied by making a smear and staining with Wright's or Jenner's stain. The smear is made by placing a drop of blood upon the end of a slide and then drawing the drop out into a thin film by means of another slide, the edge of which is placed in contact with the blood drop and then evenly drawn along the sur-

face of the opposing slide. When this film is dry the stain is applied for three to five minutes and the specimen is then ready for examination. The same method is followed in searching for the malarial organism.

The pathological changes found in the blood in infancy must be interpreted somewhat differently from similar conditions in the adult. Not infrequently we will find in simple secondary anæmias a leucocytosis and an abundance of abnormal cells, notably myelocytes, and yet we cannot call the condition a genuine leukemia. Unless there is strong corroborative evidence pointing to such a condition as leukemia or pernicious anæmia we should always reserve judgment if we are required to base an opinion upon the blood picture alone. The important fact to remember is that there is a greater frequency to anæmia in early childhood than in adults, intestinal autointoxication, intestinal parasites and rickets being prominent causes, and furthermore, that with the advent of anæmia the blood shows a strong tendency to revert to the embryonic type, for which reason it is not unusual to encounter an excess of lymphocytes together with myelocytes and nucleated red corpuscles under these conditions.

Lumbar Puncture.—Since the introduction of Quincke's diagnostic method of lumbar puncture the diagnosis of meningitis has been lifted from mere guesswork to one of the clinical certainties. Furthermore, the differential diagnosis between the various types of meningitis has been made very much easier and more positive.

The puncture is made with a small trocar or a large sized aspirating needle, inserting the same between the laminæ of the third and fourth and fifth lumbar vertebræ, in which region we can readily enter the dural sac without danger of injuring the spinal cord. An increased amount of cerebro-spinal fluid verifies the presence of an inflammatory condition, and the appearance of the fluid, whether clear or turbid, speaks for the existence of a serous or tuberculous meningitis on the one hand and a meningococcic, pneumococcic or septic process on the other. For a further differentiation of these conditions microscopic study becomes necessary.

The Sputum and Exudates.—The examination of the sputum is frequently neglected because of the belief that it cannot be obtained as it can in adults. Its mode of collection, however, is quite simple. Long before physical signs can be positively demonstrated the sputum may contain tubercle bacilli in great numbers, and it would

have been a simple matter to make an early diagnosis had we but followed the proper course. If a child have cough, fever and progressive loss of weight extending over a period of weeks, we should swab the throat at the close of a coughing paroxysm and stain the expectoration thus obtained with carbol-fuchsin, decolorizing with twenty-five per cent. nitric acid and counter staining with methylene blue. The best method of obtaining the sputum is to fix a bit of surgeon's gauze in the jaws of an artery, clip and pass it well down into the pharynx.

Pleural and peritoneal exudates should also be studied carefully, as they throw much light upon the nature of the condition which has produced them. A low specific gravity (under 1015) speaks for a simple transudate; inflammatory exudates are high in specific gravity, and contain considerable albumin. The preponderance of polynuclear or mononuclear cells also throws some light upon the case.

Purulent exudates should also be stained both with carbol-fuchsin and by Grau's method. The latter stains the pneumococcus, being positive, also for the ordinary pyogenic micro-organisms.

THE IMPORTANCE OF ESTIMATING THE CALORIC VALUE OF THE DIET IN INFANT FEEDING.

E. L. CLARK, M. D., MEDIA.

For years the subject of artificial infant feeding has been one of the trials of the medical profession. Not that there has not been apparent success with, I might say, most of the cases, but there has been an appalling death rate among those so fed, and our cases of gastro-intestinal diseases are largely drawn from among them.

That we, in this country, have not been alone in our difficulties, is shown by the prevailing foreign methods, which vary with the country. In France they are feeding whole milk. In Holland butter milk is in vogue; while in Germany they are giving a comparatively fat free milk, and more proteid.

The very fact that there has been such a radical difference in the the practice of feeding shows the weakness of our methods. We have gone through and abandoned theory after theory. We have sterilized, pasteurized, and modified, and skim milked and butter

milked. Yet we have difficulties, fewer, you may say, but difficulties just the same, in spite of doing what seemed just the right thing. As long as there are individuals, there will be such difficulties. Each economy has its own peculiar needs; yet there are fundamental principles as to the assimilation of certain food elements, and the demands of the economy for them, which, if understood, will simplify the question of feeding, and take it out of the uncertain fields and put in on a scientific basis.

We are constantly reminded of the inefficiency of our methods, by failure, even when under the most favorable circumstances. Babies that are apparently doing well on what seems to us to be a most excellent and adaptable food, suddenly showing gastro-intestinal disturbances, that, at times, seem intractable.

Pfaundler states that out of 1,000 births in the year 1900 there were 225 deaths in the first year, and of these there were 84 died from gastro intestinal diseases.

What effect nutrition has upon the cause of such a high death rate has been the subject of investigation of many authorities. "Boeckh has analyzed the Berlin statistics along these lines with the greatest of care. Not only has he inquired into the nutrition of every deceased infant, but he has also caused the various methods of nutrition of living infants to be ascertained at each census.

The survivors for each month, as given in the Table of Mortality, have been classified according to the data of nutrition in the census. In the same way the deaths at each age have been classified according to the statistics of mortality. Westergard considers that only still-born infants and those dying on the day of their birth should be disregarded. For the years 1895 and 1896, so far as the two chief means of nutrition are concerned (milk from the breast and milk from animals), the following figures are obtained.

Of ten thousand children there died in each month. They were fed as follows:

Age.	Breast Milk.	Cows' Milk.
0 months	201	1,120
1 "	74	588
2 "	46	497
3 "	37	465
4 "	26	370

Age.	Breast Milk.	Cows' Milk.	
5 months	26	311	A total of
6 "	26	277	5,168
7 "	24	241	
8 "	20	213	
9 "	30	191	
10 "	31	168	
11 "	39	147	
	580	4,588	

The mortality of children nursing at the breast is thus considerably lower than is the mortality of those fed artificially. The following table compiled by Westergard is also instructive; it shows the predominant influence on the mortality from digestive diseases where children are fed on animal milk, and particularly when they are fed on substitutes, whether these are used in combination with milk or not:

Age Month.	Breast Milk.	Cows' Milk.	Milk substitutes whether combined or not with cows' milk.	
0 to 1	10	32	38	
3-6	26	50	59	A
2-3	29	52	56	total
½	23	52	62	of
6-9	18	42	56	687.
9-12	13	30	39	
	119	258	310	

The glaring differences shown in the foregoing tables demonstrate clearly that, as it has been given, the attempted artificial feeding of children is anything but satisfactory. Holt and Rotch in their percentage method of feeding, made a great advance by trying to simulate the quality of the mother's milk, by lowering the percentage of proteid, and adding fats and carbo-hydrates, and this method has been of great practical service, yet there is room for great improvement, not in the modification, but in the knowledge of the needs of each child.

Chittenden, Atwater, and their colleagues have found out in their

investigations that the adult body requires a definite amount of proteid food daily, per pound of body weight, and that that amount is unvarying. The body can metabolize a much larger amount than that required, but when forced to do so it is without value to the body, and may do harm by overworking the eliminative organs. The amount of other foods required varies with the requirements of heat and energy. The number of calories, or units of food value, required in a day by a healthy adult is 18.1 per pound of body weight.

The object of this paper is to stimulate interest in and investigation of the calorimetric method of feeding, which gives to the infant that food which has the same calorie or energy equivalent that a child of the same age and weight would receive at the breast.

The principle of applying values of food in the feeding of children was first applied in Berlin, by Heubner, and quickly taken up by others. Heubner made a large number of observations on healthy breast-fed children, weighing them before and after each feeding, and found that after the first few days of life they consumed, during the first three months an amount of milk equal to 45 calories per pound of body weight; between 40 and 45 during the next three months, and gradually decreasing so that at the end of twelve months there was a daily consumption of from 32 to 35 calories per pound of body weight.

Lamb says: "The step forward and the value of calorimetric feeding, is that the individual child, and not a type, is fed. Each child is fed the same amount of energy per pound that the healthy breast child of the same weight and development requires." "It makes no difference whether the milk is prepared by the Walker-Gordon laboratory, the percentage method, or the top milk method, if the food agrees with the child and contains the correct quotient per pound of body weight."

For the application of the calorimetric method of feeding, it is necessary to know how many calorics are needed in twenty-four hours, and then what food will give this equivalent.

The amount of calories required in twenty-four hours is:

Age Months.	Calories Per Pound.
1-3	45
3-6	40-45
6-9	35-40
9-12	32-35

Multiplying the number of calories for the age, by the weight, will give the required number of calories for the twenty-four hours' feeding. Calories in 24 hours.—A child six months old and weighing 16 pounds would require 16 times 45 calories, or 720. To find the caloric value of any food the energy equivalent must be known for any definite weight.

The co-efficient of fat, is 9.1 per gram.

" " " proteid is 4.1.

" " " carbo-hydrate, is 4.1 per gram.

The number of calories in any food mixture may be determined by multiplying the amount of the different food elements by the proper co-efficient, and adding the products. This may be further simplified by using a table of the caloric value of the different substances entering into the composition of infants' food.

1	quart	of	whole	milk	contains	600	calories.
1	"	"	$^2/_3$	"	"	460	"
1	"	"	$^1/_2$	"	"	350	"
1	"	"	$^1/_3$	"	"	230	"
1	"	"	butter	"	"	650	"
1	"	"	skim	"	"	320	"
1	ounce	"	skim	"	"	10	"
1	"	"	whole	"	"	21	"
1	"		16 % cream		"	54	"
1	"		carbohydrate		"	120	"

According to this information there is reason to believe that at the present time we are overfeeding. A careful glance at the formulæ given most of the children who are fed by the percentage, or other methods, shows that, based on the calorimetric method, artificially fed children are receiving from 20 to 100 per cent. more calories than they should. That which may happen in the adult when overfed may also happen in the child. After the eliminative organs are worn out and rebel, there remains in the system the end products that should be eliminated, and there results the irritation of the intestinal tract, or various eczematous manifestations, prostration, anæmia, etc.

Most of the overfeeding is due not to the large amount of proteid, or to the proportions in the formula fed, but to the total amount of fat given in the twenty-four hours. As a rule, too great a quantity

of fluid is given the child, and the food is given oftener than it should.

Finklestein, in a large number of observations found that the average healthy child at the breast takes, in twenty-four hours, about 1/5 of its body weight, in the first ten days. The second week to the third month, about 1/6 of its weight daily; from the third month to the sixth month, 1/7; from the sixth to the ninth month, 1/8, and from the ninth to the twelfth month, 1/9 of its body weight daily. This would make it necessary never to give over 32 to 35 ounces. It is quite customary to find children taking from 48 to 60 ounces.

The stomach of a breast-fed infant is found empty after an hour and a half, if small meals are given, and two hours if large meals are given. The bottle-fed infant requires two and one-half to three hours to dispose of a large meal.

When feeding artificially the meals should never be given closer than three hours; in the third month, 3½ hours, and from then to the end of the first year the interval should be four hours.

It is very necessary that food should not be put into the stomach until that of the previous meal has been passed into the small intestines. We have all been taught the two hour interval, but Jacob says: "Why feed every hour? Why not feed every two and a half or three hours?" "If the child is able to wait longer intervals at night, why not in the daytime?" It is my experience that with patience a child can be trained to the longer interval.

Perhaps the most common result of overfat feeding is that of constipation. The curds which were long considered as undigested casein have been found to be generally calcium fats, fatty acids, or bundles of fat needles.

To prove that fat was the basis of the constipation, and that casein was not the cause of the curd, Dr. Walls (American Medical Journal, April 27, 1907) has fed sterile, fat free, undiluted cows' milk, at times giving one quart in twenty-four hours, to over two hundred babies. After careful examination he has never found any curds in the stools.

With the necessity of not giving an over amount of fluid, and of curtailing the amount of fat, it becomes necessary to use some form of carbohydrate to give sufficient calorie value to the food. It is well known that while carbohydrates no not replace the proteid food,

they do conserve the energy, so that much proteid is not consumed; *i. e.,* the protein may give heat and energy, but the carbo-hydrates cannot replace tissue waste.

As the diluted milk mixture (which must be used in the first months of life, because of the large curds forming from the excess of casein in the cows' milk), cannot contain sufficient calorie value, for the amount that may be given without detriment, it becomes necessary to add food of high calorie value, and small bulk. This may be given by using cream, but its digestibility is confined within such narrow lines that we must use great caution in adding it.

Another group of food materials which may be added is composed of carbohydrates. The carbohydrates most available, as sugar and starches, milk sugar, cane sugar, and maltose. Maltose not in combination causes diarrhœa so easily that it is not much used. It can be absorbed so easily that in combination with dextrin which has a constipating effect on the bowels, it is of great value in making up the energy equivalent in milk mixtures.

Cane sugar is not of great use, as it causes diarrhœa so easily. Milk sugar is of great service, and unless given in over amount does not affect the bowels.

It is the almost prevailing opinion that starch should not be given before the seventh month, and this is based upon the finding of starch in the stomach of a child that had overfed and the statement of Korwin that the pancreas did not early secrete any starch digesting ferment. Huebner and others state that the diastatic action of the saliva is active in young infants, and Mora and others have shown that a diastatic enzyme is present in the pancreas at birth, and clinical experience shows that when not given in excess starches are digested. There is no doubt that when given in excess, or undue proportion starch may be the cause of many grave conditions, among them rickets. "Finklestein states that the addition of starches to the milk is not only permissible, but to be recommended, both in early infancy and later, because the starchy gruels cause a finer coagulation of the casein in the stomach, relieve constipation, fat soap stools, and the mucous curdy stools, which are often present with simple milk dilutions; also because of its proteid-sparing power and greater resulting growth in equal amount with sugar." (Lamb.)

This method is very easy of application, and may be varied with

the needs of the child more easily than any other. Lamb recommends the "simple dilution of pure whole milk with water until it can be digested by the infant, and the addition of a carbohydrate to make up the energy quotient to the required number of calories." "Starting with a dilution of one part milk to two parts water (one-third milk), increase the percentage of milk as fast as the child can digest it, aiming to reach one-half milk by the middle of the second month. During the second and third months increase the percentage of milk still further, so that by the fourth month two parts milk and one part water is given. Keep the child on this two-thirds dilution until the eighth month, increasing the amount fed, but not the percentage composition.

The indications of successful feeding are always the weight curve, and the stools.

In conclusion.—The faults of the present method are:

1st. The feeding of a food rather than feeding the child.

2d. The great amount of fluid overtaxing eliminative powers.

3d. Excess of fats or starch, or both.

4th. Too frequent feeding.

The value of the calorimetric method is shown:

1st. Feeding an exact energy equivalent for age and weight.

2d. Not taxing eliminative or digestive functions.

3d. Ease of application and adaptation to individual.

4th. Marked elimination of constipation and gatsro-intestinal disorder.

THE HERITAGE OF THE INNOCENTS.

I. D. METZGER, M. D., TYRONE.

In the days of King Herod, nineteen hundred eight years ago, there was great lamentation in Judea because the decree had gone forth that all children under two years of age should be killed. Thus the jealous king hoped to destroy the innocent Child, who, in time, was to deliver Israel from Roman oppression. Sadly erroneous in his conceptions and woefully ignorant of the nature of the new kingdom about to be established against him, King Herod has perpetuated his name as synonymous with that of criminal ignorance.

The Herodian days are not yet ended. Day by day ignorance slays its thousands—mostly helpless, unproteced innocents.

Herod should have been a guardian over his subjects, to protect them, to nurture them, to counsel them, and thus develop them into the best possible intellectual and physical product. Instead, he slew them. The physician in his community becomes the guardian of the health of every child who comes within his influence. How he acquits himself in this stewardship can soon be recognized by his relations to the community. Herod's kingship was soon ended. Some physicians, sadly enough, are likewise short-lived, professionally.

Mankind has no choice in its status of birth. We happened to first see the light in glorious free America, cradled in liberty, in the light of scientific intelligence and anointed by religious civilization. We might have been born elsewhere and under much less auspicious circumstances. The greater part of our blessings are gifts and not the result of any efforts of our own. It is true that our voluntary efforts may involve into subjection to ourselves and not our welfare the opportunities at hand, yet we are very futile in creating such opportunities. In matters of health and physical well-being our doom is largely fixed in our age of innocence ere we become cognizant of the greatness of its purport. Our ancestry is selected without our consultation. Our environment is the product of others during much of our nascent period. Even our thoughts and cerebral activities are established to an amazing degree without our consent or direction. We surely are creatures of circumstances.

As a tree which is planted into the right kind of soil, and which, under proper climatic conditions, may devlop to become the peer of any of its kind, so the child may attain to a maximum of well-being under the most helpful circumstances. If the tree be injured or illy nurtured in its tender age, it can never be expected to develop to its former possibilities. If the child be encumbered by superstition, by poverty resulting in ill-nourishment, or by disease, inherited or acquired, he sets forth into the world handicapped, defeated ere he comprehends the possibilities of life. Let us be charitable with such unfortunates. Ignorance of law, natural as well as statute, is no excuse in securing exemption from its consequence. Therefore, the sooner acquaintance is secured with nature's laws and conformity is made with them, the easier becomes our future life. Laws of

health and life were established from the beginning. Infraction of these laws has led to disease, and death to sin and mortality. Conformity to these laws is conducive to happiness and longevity. A general intelligence and clear comprehension of their meaning, as applied to human life, is the solution to the problem of successfully combatting disease.

We are coming to see more clearly year by year that many of our most intractable diseases are preventable. Strange to say, children are heirs to most of these and are the chief sufferers. They who cannot protect themselves, are permitted by their guardians to be subjected to the ravages of these diseases, to be reduced in number by death or to be encumbered throughout life by maladies which modern intelligence should obliterate from the face of the earth. Why should such diseases as mumps, measles, pertussis remain extant? Suppose each patient suffering from such disease should be perfectly isolated, how long would we hear of the disease? As long as a new nidus is supplied the disease will be perpetuated. When a dangerous fire threatens to destroy a whole city, two things are immediately attempted; the greatest vigilance in preventing spread to new areas and the destruction of the existing conflagration. These two precautions also face every physician in the management of any communicable disease. The war which is waging against tuberculosis both in treatment and prevention is accomplishing wonders for the future welfare of mankind. The success is due largely to the general enlightenment which is awaking humanity. Why should we not totally eradicate the seemingly innocuous contagions and narrow our field of warfare? By so doing we shall eliminate much that makes for lessening the resistance to graver diseases. Much may be done in this line by general education. When people realize the nature of these diseases and the possibility of their prevention they will hasten to their physician for greater intelligence and tacitly follow his instructions concerning their managmeent.

Every American born or American adopted child inherits one of the greatest gifts that may attend any human life, the possibility of a good general education through the provision of our common school system. Ignorance on the part of the guardian in willfully depriving his charge from this asset to life's success, is the only hindrance to the enjoyment of this blessing by every child. The compulsory attendance law, properly enforced, overcomes even this

hindrance. Since the various commonwealths provide this system of general education by generous appropriations, they have a right in turn to dictate any special education which tends to better the commonwealth.

In view of this fact the State of Pennsylvania, in April 2, 1885, provided that "Physiology and hygiene with special reference to the effect of alcoholic drinks and stimulants and narcotics upon the human system should be included in the branches of study and be required by law to be taught in the common schools." Very well do we remember the stubborn opposition to the enforcement of this law by teachers and even by some physicians, who thought it to be an infringement upon their prerogatives. But the statute stood inexorably under the ban of the withdrawal of the State's appropriation. Some superstitious districts even threatened to accept this alternative, but general enlightenment had penetrated these dismal spots sufficiently to overcome this recourse. So the edict stood, and was at last literally followed by teachers.

In spite of the fact that the spirit of the law was evaded for many years alike by teachers and directors, we as physicians, after the elapse of twenty-three years, can in various ways see remarkable results of this teaching and study. The well-aired and well-lighted house, the guarded care in cleanliness and drainage and the many other evidences of an educated hygienic conscience in the young wife, developed in the common schools, put to shame the obnoxious superstitious of her less cultured ancestors. Furthermore, she seeks suggestions from her physician rather than from her grandmother as in former days.

The powerful crusade against intoxicants which is sweeping over our land. I take it, is largely the result of the educational work in the schools reinforced by the efforts of our churches against this traffic. Thus it is seen that the common schools are the medium through which the State may accomplish much that pertains to the well-being of humanity.

The benefits of the compulsory vaccination law are already unmistakable in preventing epidemics of the loathsome small-pox. Reference has already been made to the handicaps which many children possess in life. These should be removed or mitigated ere the child enters school. Too frequently, however, they are entirely overlooked until they come under the more discerning eye of the

teacher. Even then the physical imperfection may be unobserved or disregarded unless the district be fortunate enough to have a medical inspector. Some districts have provided for such inspection. Should not the State make this compulsory upon all districts? Visits by such inspector would aid greatly also in enforcing school sanitation and necessary quarantine. In many ways this public institution affords a very opportune way of reaching the immediate homes in regulations pertaining to public health and general public welfare.

The legacy of monetary value which we may chance to inherit is very insignificant in comparison to the mental and physeical status with which we enter the world. Parents ofttimes seem to forget this regarding their offspring. Most every daily paper glares with the tragic deeds of mental weaklings overburdened by inherited wealth. The avaricious spirit of the father, or the malevolent anxiety of the pregnant mother, is apt to be transmitted to the child in a manifold degree. The iniquity of the parents is indeed visited upon their children to the third and fourth generations, physically as well as mentally. No doubt it has been your custom, as it has been mine, to enjoin upon every prospective mother consulting you to cultivate a cheerful spirit, avoid enslavement to material environment or to mental anxiety, and to anticipate with noble expectation the accomplishment in her being of the greatest event that can befall a human life. Thus she may be able to transmit a prenatal influence of infinite consequence. You remember much effort is made in the account of the immaculate conception to relieve the mind of the Virgin mother regarding her prospect. May it not be that here the welfare of the divine Child was anticipated? If some of the precaution which is uselessly exercised in attempting to prevent "birthmarks" were observed in conserving maternal nerve force and energy, we might expect to find in future generations greater poise and less vacillation.

He who plays upon the perceptions, the sensibilities and the volitions of an innocent, non-knowing but evolving, mind, plays upon an instrument of most delicate mechanism. The slightest discord may resound unceasingly. Cerebral organizations are forming and neural courses establishing. Habits once formed are followed and scarcely reformed. The sensitive organism likewise is most susceptible to the action of drugs. Medicines applied according to the law of similars find here a most opportune field for unhindered ac-

tion, and in the child, therefore, we often observe the most marvelous curative results attendant upon our prescriptions. On the other hand, we here often find the most disastrous results from the physiological action of crude drugs, whether from the hands of the physician or from the patent medicine counter.

Phillips Brooks once said: "He who helps a child helps humanity with a distinctness, with an immediateness, which no other help given to human beings in any other stage of their human life can possibly give again." In their haste to minister to adult life, even physicians may forget these little ones and fail to properly investigate their ailments so as to ascertain clearly the necessary treatment."

The vast number of charitable institutions for needy children in our country shows that the great public heart is throbbing in hushing sympathy to their bitter wail. Modern science is tempering their pains and reviving their debilitated forms. Modern education is awaking their dormant minds and pointing to sublime fields for exploration. In general, public conscience is challenging the cause of the innocents, and future generations alone can reveal the wisdom of our present foresight.

REPORT OF THE

SECTION OF MATERIA MEDICA.

Homœopathic Nosodes and the Opsonins, by Z. T. Miller, M. D.
Phosphorus, by Edward Cranch, M D.
Psorinum, by M. M. Fleagle, M. D.
Medorrhinum in Children's Disorders, by Julia C. Loos, M. D.
Some Experience With the Nosodes, by Anna D. Varner, M. D.

HOMŒOPATHIC NOSODES AND THE OPSONINS.

Z. T. MILLER, M. D., PITTSBURGH.

The purpose of the Bureau at this meeting is to demonstrate the status of nosodic medication.

The present effort on the part of biological investigation tends to increase the importance of, and interest in, the use of such medicines, so much so, indeed, that it may be claimed that nothing has occurred since medicine men pulled apart that is so likely to pull them together.

That the product of a disease—whether prepared as a serum, vaccine or high homœopathic potency—should have within itself the power to throttle its own parent, is a therapeutic matricide that is little short of astonishing.

The most recent reseach seems to prove that it is a fact, and, incidentally, to confirm the inductions of Hahnemann. But is not well to be too enthusiastic. The by-ways are strewn with the carcasses of medical facts. That this discovery—if discovery it is—should have been made goes to show that all preceding discovery is more or less error that needs correction and even this, in turn, may have to be corrected. Haeckel says there is no absolute truth; I believe it. There is, however, a bad and worse. It is bad enough that medicine has to be given at all; in this class I place the homœopathic, but it is a danged sight worse to give vaccines and drug truck expecting to improve the appetite of a mite that measures one 2400th part of an inch in the hope that it will eat. what the Germans call "gift" with

greater relish. That is the proposition; increase the voracity of the leucocyte; stimulate his phagocytic capacity and he gulps the stuff that makes hell on earth. I must confess, the more I try to figure out the rationality of the opsonic business the more I get into the muck. The whole proposition is so nihilistically iconoclastic—pardon me—that I feel that my own bugs have taken to the woods and left me a prey to that greatest of all bugs, "skepticism." Something more than bugs and bug eating lies behind the proposition of health deviations; a something that no man knows and no man can find out. The grand push that materialized this universe of intricacies lies, and ever will lie, hidden in the recesses of nature's mystic house. When we think we have the key, the door open, the secret still remains unrevealed.

> "And that inverted bowl they call the sky,
> Whereunder crawling, cooped we live and die,
> Lift not your hands to it for help—for it
> As impotently moves as you or I."

Man's hope and helplessness are eternal. His alternate arrogance and humiliation are bi-annual; and yet, withal, some seeming truths crop out. When we read of the searches after the spring of eternal youth, we smile, but there are as many searchers as there ever were, and some more. They all come out the same door wherein they went, and man's destiny made and marked by the eternal verities, moves twixt the beginning and end as surely as the solar cycle, unswerved by his effort. Most of you do not believe this, and it is good you don't; for it is the confidence that the riddle may be solved that produces the energy that has uncovered much that is interesting if entirely foreign to the ends sought. We hug the seeming triumphs as though they were realities, and forget them when their futility becomes apparent, as a child blows new bubbles, while he watches those past made, explode. The medical and religious mix is so polypharmic that the unbiased inquirer after the "best" gets so balled up that a spirit of complete asceticism results. Christian Science and medical science—both misnomers—befuddle, while they throw dust to build their devotees to the truly rational preventive measures of sterpiculture. So long, however, as man does as he does, so long will the triumvir of patchers keep open shop, wherein

he gets what he wants. He damns his soul, the preacher prays for him; he mutilates his body, the doctor mends it; he does his neighbor, the lawyer does him. Upon such asinine substructure is the professional superstructure built.

In the enthusiasm of youth, prompted by a necessity for a livelihood, the profession of medicine suggests itself as a means congenial to our temperament. A demand upon the part of the people gives us employment sufficiently remunerative to clothe our backs, feed our stomachs, furnish a place to sleep, a habitation and a home, and for this we build colleges, educate men to a possession of the knowledge of the combined experience of predecessors. This has been going on for centuries, but the undertaker is still with us and boards of health are still stamping out disease. To keep up the semblance of erudition and progress—don't forget that I mention progress—we hatch a new scheme every moon, or nearly so, by which a percentage of returns on the investment for both is reasonably assured, at least, so reasonably that both the served and servant get their money's worth, or think they do.

The last great find is the opsonic. To the followers of Hahnemann, this is not new, at least the practical application is not. I shall not go into detail regarding this discovery (?) nor will I relate the homœopathic premises, but confine the report of this bureau to the experience, confirmatory or otherwise of such physicians as have made use of the nosodes.

As homœopaths—the opsonic scheme being correct—we must claim that the potentized drug accomplishes all that the vaccines do in the way of raising the index to the protecting plain. The class of medicines coming within the scope of opsonic action are, of necessity, the products of disease itself. Psorinum, Medorrhinum, Syphilinum, Schirrhinum, Hydrophobinum and others all come from the ills they are expected to cure, but we, having proven them, collected vast clinical indications, carry the therapeutic possibilities far beyond the mere patho-histologic manifestations, of the parent pus.

The dark brown, watery stool, offensive, stinking body of the Psorinum patient, is a condition that the medicine has cured. Where would that patient be, if the opsonic procedure alone were relied upon for indications. No matter what the classification is, if the characteristics of Psorinum are present, the medicine is effective.

Compare the scope of the homœopathic possibilities of Psorinum with the beggarly circumscribed sphere of the opsonic and you have at once a demonstration of the superior status of Similia.

The symptoms under Hydroph., "Desire to urinate as soon as hears water run." This occurs in persons who have never been next a mad dog. Many others of its symptoms would be absolute rubbish if the opsonic search had to be relied upon to find an inning.

The gross manifestations of all the diseases producing nosodes are palpably plain, but it requires the homœopathic laboratory to develop the more potent characteristics for therapeutic use. The index, unless amplified in a manner not yet apparent, is too circumscribed to occupy anything but a very limited field of curative activity. The technique attending its use makes it well nigh impracticable. How different with Homœopathy in the same field. We have all the opsonic offers and infinite resources besides, with method and means incomparably superior to the opsonic. If it can be established that the internal administration of a nosode is curative of the disease from which it came, the whole problem of curing anything is settled. In the matter of vaccination, variolus virus, as a prophylactic and curative of small-pox is an example that has been tried out and received the approval of, not only local, county and national homœopathic bodies, but of the law, as that has been declared valid by all the courts of Iowa. Illinois has recently passed a law against compulsory vaccination. Pennsylvania Legislature passed a similar act at the last session, but he Governor vetoed the bill, thwarting the will of the people expressed through their representatives. The American Institute voted by a small majority against internal variolation, giving as a reason that the Institute did not know enough about the method, an acknowledgment that was as much to its discredit as a vote in its favor could possibly have been. This, notwithstanding the fact that Dr. Eaton, of Des Moines, Iowa, had presented a scholarly and convincing paper on the subject at the same meeting. I believe you have all received a copy of that paper. Here we have a confirmation of the efficacy of internal administration of nosodes. If we accept the theory at all we are bound to this homœopathic evidence and, in addition, to claim that homœopathic technique is, by all odds, the superior. It is simplicity itself, where-

as the opsonic is so ponderously scientific and at the same time so limited in its application that it is well nigh a costly brica-brac instead of a general commodity. Another advantage, the totality of symptoms, so essential in homœopathic procedure, enables us to meet the condition of so-called mixed infection. Almost every case we meet is of mixed infection. It is mixed infection that changes the complexion, contour and course of every case of illness. No two people are sick alike. Syphilis and small-pox will not, cannot present the same front that gonorrhœa and small-pox does; so down the whole list of rottenness. The kaleidoscopic aspect of ailments is what makes you scratch your head, and the fact that Homœopathy compasses that very situation is what is bound to make it survive every other system of the therapeutics of which anything is known.

We are asked to believe that because one or more of the invading bacilli are found inside the leucocyte, that the cause of ills are being consumed. I am not inclined to accept the deduction as final. If the blood fluids modify the bacteria in a manner which render them palatable prey, is not the modification caused by the serum the curative process and not the fact that have been eaten? If healthy serum is bactericidal all that is necessary is to keep it healthy, and why did it become unhealthy? We are told that it is because of the great influx of bacteria, yet, on the other hand, e are told that bacteria do not sprout except where soil is suitable. What makes the suitable soil?

I am not combatting the opsonic theory, because, in the main, it confirms Homœopathy scientifically, and because it polishes similia so that some will accept it as pure gold who have been luke-warm on account of the absence of the scientific trade mark. Some people won't eat bread that has not got the trade union stamp; it's bread just the same.

An opportunity is now offered our school to demonstrate its right to existence by reason of its priority of use, and method of application, of a correct, or, at least, the best method of healing known. At best the opsonic can be looked upon as supplimental, merely, for, in no sense can it be demonstrated as superior to the old practice of covering the totality. This is being accepted everywhere as permissible. Even the high priests of the inner temple have so far loosed their strangle as to admit to the sanctuary a practitioner of

Homœopathy and no questions asked. What does it mean? We are told that it is because of the great and growing liberality of the saints; I don't believe it. It is the logical outcome of a tardy conviction that Homœopathy, as a theory, always has been true, that the opsonic is a scientific demonstration of its truth, which compels acceptance by every reasoning mind.

Some men prate about the best of all schools and place upon their smiling brows the wreaths of conquering laurels. I am wrought with envy when I meet such heroes? For over thirty years I have given reasonable effort to the acquisition of the best there is in Homœopathy and to-day am compelled to confess that at the present rate I will have to gulp Metchnikoff clabber for one hundred and fifty, and then some more, before my hide is outside the best of one school, and, when it is, there will be no need for the best of any other.

PHOSPHORUS.

EDWARD CRANCH, M. D., ERIE.

Phosphorus has close medicinal relations with Arsenic, Sulphur, Lycopodium, Iodine, Potash, Nux vomica, Sepia, Calcarea, Natrum muriaticum, Causticum and Kalmia. It antidotes Nux vomica, but follows it well. It is wholly inimical to Causticum, and neither precedes nor follows it with comfort or safety. It corrects mad effects from the too free use of common salt, of Iodine or Camphor, and of Chloroform, as in anæsthesia. (Kalmia is an antidote to Chloroform on account of the hydrocyanic acid it contains.)

Phosphorus is an active, irritant poison, but generally slow, unless in very large dose. In cases of poisoning, use an emetic of sulphate of copper, followed by magnesium sulphate as a purge, with hydrated magnesia, lime water, powdered charcoal, common turpentine (not the rectified turpentine, unless it has absorbed oxygen, by long exposure to the air). That known as "crude, acid, French or English turpentine is the best antidote. Permanganate of potash is also extolled as an antidote, but the main dependence must be on the emetic and the purge.

The first effects of Phosphorus in the provings are excitant, irritating, sthenic, later effects, in provings and poisonings, as by long

exposure to the fumes, are destructive, asthenic, and tending directly to a fatal issue, or to permanent invalidism.

The effect of even the thirtieth of a grain may be sickness and jaundice persisting for weeks, while other effects include fatty degeneration of heart, liver, kidneys, and other organs, hæmaturia, albuminuria, cirrhosis of liver, atheroma of all blood vessels, caries of exposed bones, pernicious anæmia, hæmorrhage and softening in the brain and cord, retinitis, glaucoma, deafness, vertigo, laryngitis, aphonia, pneumonia and œdema and suppuration of lungs, abscess of liver, enlargement of spleen, ulcers of stomach, with hæmorrhages, hæmorrhagic diathesis, blood refusing to clot, changes on skin resembling eczema, psoriasis, acne, herpes and erysieplas, the hair falls out in large tufts, and the sexual system, at first greatly excited, lapses into impotency. The bowels are sometimes constipated, but oftener exhibit a chronic diarrhœa, with a sort of palsy of the rectum and anus. Melancholia, morbid sweats, delirium, followed sometimes by convulsions and coma, end the series.

Its use in the old school is comparatively restricted, Bartholow especially cautions against its too free use, or in too large doses. He says: "Phosphorus is of use in failure of the osseous and nervous systems, in rickets, pernicious anæmia, wakefulness of the aged, early decay of mental powers, paralysis agitans, neuralgia, softening of the brain, impotence, locomotor ataxia, acne, psoriasis, lupus, replacing Arsenic in some skin diseases."

Brunton says: "Phosphorus forms an important constituent of nerve tissue, and has been employed in cases of nervous debility, neuralgia, wakefulness, paralysis, locomotor ataxia and impotence. In some cases of leucocythæmia it is useful. It has been used in osteomalacia, and instead of Arsenic in skin diseases. Even in small doses it may cause nausea with unpleasant eructations. It is well, therefore, to begin with a very small dose, such as the 1/100 of a grain."

Shoemaker, of the Medico-Chi., says: "In neurasthenia or nervous debility, where the system is weakened by anxiety, overwork, or sexual excesses and in neuralgia, Phosphorus is a valuable tonic and restorative, and is given with success in herpes zoster. In small doses continued for considerable periods, it is of service in arresting fatty degeneration of the heart, and in ameliorating the symptoms due to that condition. . . . It is used in angina pectoris, . . .

in atheroma of the cerebral vessels, . . . hysterical paralysis and melancholia, morphino-mania and chronic alcoholism."

It checks sweating due to nervous debility, and may be employed as a restorative after typhoid or typhoid pneumonia. It is used in intermittent fever, in anæmia, in pernicious anæmia, in rickets and in osteomalacia. Also in recession of the eruptions of the exanthems, as measles, scarlet fever, small-pox, etc. In crops of boils, acne and eczema (of a nervous origin), calcium phosphate or the alkaline hypophosphites are highly serviceable. Caution! Do not triturate the hypophosphites in a mortar, as they are liable to explode. Amorphous, or red phosphorus, is completely destitute of taste and odor, has no irritant or caustic effect, and is non-toxic.

Ringer, of London, recommends it in neuralgia, in pneumonia, especially in typhoid pneumonia, in proctitis, to repair the debility left by spermatorrhœa, etc.

By using very minute doses and following the law of similars, we may use phosphorus with great benefit in all kinds of fatty degenerations, in hepatitis and chole-cystitis, with jaundice, in all forms of tuberculosis, but in these with the greatest caution, or irreparable injury may ensue; in the hæmorrhagic diathesis, in cancers and other tumors, that bleed easily and burn much; in rickets, chorea, chlorosis, marasmus and in various paralyses, hemiplegia, post-diphtheritic and pseudo-hypertrophic. In general paralysis of the insane, and in other ailments generally due to tertiary syphilis, such as locomotor ataxia, paralysis agitans, tremors, exostoses, especially of the skull, and caries and necrosis, especially of the bones of the face. In all forms of neurasthenia, provided, generally that there has been a precedent state of excitement or erethism, in such order as is found in the provings.

In softening of the brain from embolism or hæmorrhage, the patients weep or laugh, easily or involuntarily, and are dizzy on rising up.

In many ailments of the eyes, as cataract, nyctalopia, muscæ volitantes, retinitis, hæmorrhage in eyeball, loosening of retina, in glaucoma, etc. In deafness, especially to the human voice.

In pancreatitis, with oily stools, cirrhosis of liver, enlarged spleen.

In bleeding piles, a small stress of blood with every stool.

In sterility, with nymphomania. In fistulæ of milk ducts, bluish color.

In laryngitis, croup, diphtheria, in capillary bronchitis, in all stages of pneumonia, in œdema of lungs, in reflex coughs, worse from mental excitement, and all forms of hemoptysis.

In spinal irritations and paralyses from drenching rains, as with Rhux tox. In caries of vertebræ, curvature of spine, neuritis, subacute; in all forms of neuralgia, especially intercostal.

In fungus hematodes, in psoriasis of palms and soles, in acne indurata.

In many gouty and rheumatic ailments, in purpura, and in the hæmorrhagic forms of the exanthems and diphtheria, in gastralgia.

In vicarious menstruation (Bry.), in the debility of age.

In chronic diarrhœa and occasionally in constipation, in diarrhœa of infants and children.

Given in pregnancy, it is said to prevent club-foot, shrunken wrist, curved spine, and other rachitic ailments.

If one has been exposed to the exanthems the exhibition of a few doses of phosphorus will put one in a good condition to withstand them.

It is useful in extreme exhaustion, "death-door" conditions, in typhoid, etc.

Its use will help excitable youths to maintain continence, and avoid masturbation.

In boils, glandular abscesses, chilblains, polypus, asthma and also in some cases of dysmenorrhœa.

Conditions especially characteristic of Phosphorus:

Vivacity of spirits, acuteness of sense and memory.

Sensitive to all noises, music, conversation, light, odors, contacts, movements, all excitement is "too much for him." (Cf. Acon., Bell., Nux, Tarent.)

Hysterical, clairvoyant, susceptible to animal magnetism and mesmerism.

Amativeness. Likes the dark, but dreads to be alone.

Fearful of thunder storms. Starts easily, has fearful hallucinations. (Stram.)

Rather taciturn than loquacious.

Temper uncertain, but if he gets angry, it disturbs him both bodily and mentally, and he is sorry for it. (The Nux patient *not* sorry.)

Morbid impatience and discouragement, dull forebodings, disgust for life and despair of recovery. (Psorinum.)

Weeps or laughs, easily or involuntarily, apathetic, unwilling to talk, answers slowly, or with the wrong words; aphasia, melancholia erotic mania, as after embolism or cerebral hæmorrhage.

Delirium, with difficult respiration, great activity followed by stupor. Vertigo after meals and on rising from a seat.

Inclined to be haughty and reserved. (Platina.)

Pressing healache on top of head, worse on contact. Feels heat on it. (If the pressing headache is relieved by more pressure, Nux, Alumen.)

Skin of forehead (and of face) feels drawn and tight.

For alopecia rub on one ounce Castor oil containing one dram of tincture of Phosphorus, rubbing a little on daily, and washing off with hot water, without soap.

Complexion clear, face wan, pale, earthy, with hollows and blue rings about the eyes.

Facial neuralgia, with tearing pain, as if the flesh was being torn off from the bones.

Gray mist before the eyes. Red or green line about letters when reading. Night blindness, cataract, amaurosis, glaucoma.

Nose bloody from polypus, or from catarrh. Every handkerchief bloody.

Dry, red strip down centre of tongue. (Verat. vir., Nat. mur., Bapt.)

A prevailing lack of thirst, but craves cold, refreshing food and drink, fruit, ice cream, soda water.

Cold drinks temporarily relieve pain and nausea, and even bleeding, but *everything drank is vomited after a while, as soon as warm in stomach.*

Stomach painful and sensitive, through to back, as in ulcer.

An obstructive spasm of œsophagus and cardiac opening (dry throat).

A weak, empty, all gone sensation in stomach and whole abdomen. (*Sul.*)

Ailments from sweets and aversion to sweets.

A *weakness of the rectum*, sometimes with proctitis. Constipation of long, thin stools, expelled with difficulty, a rare condition but the difficulty lies in the disability of the rectum.

Diarrhœa is more frequent, in fact, Hahnemann calls attention to his observation that Phosphorus acts more beneficially when a

chronic diarrhœa is present. Here the weakness of the rectum is again manifest, for the stool, if watery, is expelled in successive jets, just as the rectum fills up; not in the single, prolonged effort of Gamboge, nor the sudden squirt of Croton, nor the hydrant stream of Podophyllum.

If the stool is mucous, it seems to ooze continually from the anus, which appears to stand wide open, as with Apis and Secale.

If there is bleeding it comes in a thin stream at every stool, and does not clot easily in contrast with the bleeding of Belladonna.

The only characteristic appearance in the stool of Phosphorus is the presence of smaller or larger *sallow-like or sago-like pieces.*

There may be involuntary stool with the jarring cough, and there is often a diarrhœa of undigested food.

Dr. Gregg, of Buffalo, gives the keynote in infantile diarrhœa, with Phosphorus, that the *stools smell like gas lime,* the lime that has been used in purifying artificial gas at the gas works.

(Before giving Phosphorus in chronic diarrhœa, it is advised to exhibit a few doses of Nux vomica, as before Lycopodium. This caution is not apparently of much importance.)

Nephritis of several forms. Enuresis with cough, as in Caust., Squill and Yerba Santa.

Enuresis of children with urine looking like spring water.

In scanty urine, in rickets, brain-fag, etc., milky urine.

Just as in the provings a state of erethism always precedes the states of depression, so in order to get permanent cures, as in impotence, always observe that the patient has passed through a stage of morbid excitation.

In women there is irregular menstruation, vicarious menstruation. (B. & T.)

There is an acrid, blistering leucorrhœa, as with Kreosote.

Given during pregnancy, it is said to prevent club-foot, shrunken wrist, curved spine, and other rachitic deformities.

It will relieve nausea of pregnancy when the sight of water causes it; the patient must close her eyes when stooping over the wash bowl.

It will often help on the milk, after confinement. (Lyssin.)

In the respiratory sphere, Phosphorus mostly neglected by the old school, has done most excellent service.

With the characteristic *over-sensitiveness of Phosphorus patients to pain,* all its respiratory ailments are predominantly painful, it

hurts to breathe, to talk, to press the chest, especially the intercostal spaces. It hurts and jars all over to cough, it hurts to stand erect, and it *always hurts to lie on the left side,* or even on the back.

The cold open air hurts, as in Aconite, and a hot room distresses. The cough is worse in going from a warm room to a cold place, the reverse of Bryonia.

There is great and painful hoarseness, even aphonia, there is always *tightness over the chest,* and generally a sense of weight, the hands are held on the chest, not because pressure relieves the pain as in Bryonia, but to keep the racking cough from further jarring the painful ribs.

The evening cough dry, expectoration taking place mostly in the morning. Expectoration rarely swallowed, often blood-streaked, rusty or of bright blood, frothy and salty.

All hæmorrhages are predominantly bright and intermittent, freely bleeding for a while, then stopping, to begin again, at nearly regular intervals, longer or shorter.

Plethora is more common than anæmia, but this will follow later.

Burning anywhere is very common under Phosphorus, as much so as under Arsenicum, but the Phosphorus patient wants to be uncovered while the Arsenic patient is better warmly wrapped.

Burning of the hands trying to uncover and cool them, is as marked as the like condition of the feet with Sulphur. (Cf. Lyc. and Lach.)

Burning spots along the spine. Back easily strained, aches as if it would break. (Sep., Rhus, Arnica.)

In gout and rheumatism the *Phosphorus patient is a "human barometer."* Much numbness of extremities, and coldness of hands and feet and knees.

Spasms with full consciousness (as in Nux).

Phosphorus subjects present the general appearance of those who are susceptible to tuberculosis, and most of them are.

Ailments of old people who have been active.

The Phosphorus subject gets *little sleep, but is always better after* it, if not awakened suddenly. *Is always better in evening twilight and after midnight.* May have bad dreams, or walk in sleep, as in Natr. mur.

Ailments from the wash tub. (Ironing, Bry.) Worse from getting hands wet.

Perspiration has odor of Sulphur.

Ravenous hunger at night, unappeasable, especially in or after chill.

Morning sweat before waking.

Great fidgetiness all over, like that of Arsenic, only more so; cannot sit or stand or lie anwhere long. (Feet alone fidgety, Zinc.)

Phosphorus partly covered with water, generates ozone, and gives rise to nitrite of ammonia, these may be utilized to purify and apartment. (Hang up a bunch of phosphorus matches moistened in warm water.)

PSORINUM.

M. M. FLEAGLE, M. D., HANOVER.

Prologue.

We are living in an ultra-scientific age. Edicts from high scientific sources keep us continually surfeited with a knowledge of germs, toxins, anti-toxins, serums, opsonic indices, etc., and many are the theories advanced for the amelioration and cure of human sufferings.

Notwithstanding this striking array of theories and facts (?), we are to-day being tossed about on the greatest wave of therapeutic nihilism the world has ever known,—and skepticism grows apace. Why is this? Does it mean satisfaction with the present scientific methods of treating disease? No, my friends, even the powers that be are beginning to see the vast chasm which exists between the scientific (?) *cause*, and the scientific (?) *cure* of disease. If, then, in view of the foregoing facts, the amalgamation of our school of medicine with all other schools, under one great, grand, broad scientific basis is such a desirable thing, it may be well for us to inquire as to the necessity for the sale of our birth-right, and what we may expect to receive in return. In other words, if we are not already on a scientific basis, it is well for us to know it. Let us see. Have not homœopathic physicians, even from the time of Hahnemann, cured the *same class of diseases*, with the *same remedies*, regardless of germ theories, or any other pathological diagnosis? Do homœopathic remedies act differently to-day from what they did in the time

of Hahnemann? Are such drugs as Acon., Bell., Bry., etc., less efficient to-day than they were one hundred years ago? Never—when prescribed in accordance with the "Law of Similia," and this, my friends, is what I call true science. Is this not a striking contrast to the kaleidoscopic changes of therapeutic methods in the dominant school?

One great, grand, basic principle for the faith which is in us, is, that notwithstanding the continuous, persistent, and well organized efforts to discredit, and bring into disrepute, that which is, probably, the only true therapeutic law in existence to-day, *not one inharmonious fact* has been developed from *any* source (scientific or otherwise), to mar the beauty and accuracy of Hahnemann's observations, and the law of "Similia Similibus Curantur" stands to-day an enduring monument to Hahnemann's memory,—immutable and firm as the Rock of Ages.

This, then, my friends, is a birth-right of which every true homœopath ought to be justly proud, and we should be very careful lest we allow it to be exploited to the world under false colors, or offer to exchange it for that "Rational," "Scientific" mess of pottage with its uncertain, ever-changing ingredients.

Instead of trying to "hide our light under a bushel" let us bring before the world a few of the treasures used by homœopathic physicians for many years in successful combat against the most serious illnesses to which human flesh is heir; I refer to the nosode remedies.

A short historical sketch may be apropos; the idea of preventing or curing a disease with its own poison is a very ancient one, and, probably, originated among primitive peoples in an effort at immunization against snake-bite. That it was subsequently almost entirely developed from homœopathic sources is proven by the fact that as early as the year 1833 a Mr. Lux, a homœopathic veterinary surgeon, of Leipsic, at the suggestion of Drs. Hering and Gross, prepared a book, entitled "Every Contagious Disease Contains, In Its Contagious Matter, The Remedy Of Its Cure." This was, probably, the "germ" of modern bacteriological therapeutics, and ante-dates such modern investigators as Pasteur, Koch, Von Behring, Wright, and others, by about *sixty years*.

I will take one of the most important of the nosode remedies as the subject of this paper, namely:

PSORINUM.

This remedy, a product of Psora (constitutional itch), is probably one of the best proven of all the nosodes. Proven almost entirely in the potencies, it has not had that general use among homœopathic practitioners which such an important remedy deserves, and which suffering humanity seems to demand. The ancestral origin of Psorinum (though not illustrious) would turn a modern gynæcologist green with envy, on account of its antiquity, for its ancestors flourished hundreds of years before the time of Moses (3400 years ago), and one of the chief requirements of the priesthood at that time, was freedom from this bodily defect.

You will not be astonished, therefore, when I say that Psorinum possesses a depth and power of action on the human body far beyond that of Sulphur, which, as you know, is one of our longest and deepest acting anti-psoric remedies. So true is this, that in the text books we find this statement, "In *chronic* cases, when well selected remedies fail to relieve, or permanently improve, give *Psorinum*. In *acute* cases—*Sulphur.*" Also in cases where Sulphur seems indicated, but fails to act. We might truthfully say that *Psorinum* is the *chronic* remedy to Sulphur. There is no special cause for wonder then, that Sulphur is very frequently prescribed when Psorinum ought to be, for many of the differences in the two drugs seem to be one of degree.

The Psorinum patient is horrible to look upon. He is *offensive* to the eye and to the nose. All the discharges from the body, whether leucorrhœa, diarrhœa, otorrhœa, or of any other nature, are so horribly offensive that you can smell the patient almost before you see him. I once cured a chronic case of otorrhœa on the following symptoms: Child, ten years of age, pale, and sickly looking, no appetite, filthy appearance of skin, hair matted together, and a discharge from *both ears,* but worse on the right side. The discharge was greenish-yellow, and rather watery in character, with some blood, and was so terribly offensive that I could scarcely endure the patient in the office. I cleansed the ears frequently and carefully, but all to no purpose. I gave several remedies internally also, but finally decided that Psorinum was her remedy. I gave it in the 200th potency, and inside of six weeks the child was cured.

Another instance was in the cure of a man aged 45 years. Had

"doctored" twenty or twenty-five years for an eruption which covered the entire scalp. When I first saw him, the entire scalp was one mass of crusts from beneath which a yellowish watery discharge exuded, and the hair had all come out. The odor was so decided that the man had to quit work (a moulder), as his associates could tolerate him no longer. He could not attend any public meeting, and had not gone to church for years; his general appearance was very filthy and untidy. I gave him Psorinum 200th, and the reaction was so violent that it threw the patient into a fever which confined him to bed for nearly three weeks, during which time the eruption spread all over his face, and on the front part of the chest. Rhus tox. controlled these symptoms, after which I again gave him Psorinum 1000th. The skin symptoms all cleared up nicely, but two large abscesses formed on the glands of the neck, one on each side, and each discharged one-half pint of pus. The abscesses healed, the skin symptoms all disappeared, the hair again grew, and in about five months he was a well man, and remains well to this day—now more than six years. This gives some idea as to the depth of action in Psorinum. We see that one of the chief centres of action is on the skin. The skin is unhealthy and dirty looking; thickened in places, and itches violently, especially when the patient gets warm in bed; he must uncover, and is relieved by open air.

There may be violent itching of the skin without any eruption (Mezereum), but, as a rule, the skin is thickened by eruptions, crusts form, the skin becomes raw and bleeding, and the discharges are horribly offensive.

Psorinum is a very useful remedy in patients convalescent from some acute disease. The disease has run its course (as, for instance, typhoid fever), but the patient remains weak, perspires freely from the least exertion, must lie down, and does not want to be moved; he has no appetite, and seems completely exhausted. Psorinum will bring about a favorable reaction, and the patient soon improves. You may be surprised to know that Psorinum is a most useful remedy in hay fever, one authority stating that he has cured more cases with it than with any other remedy. One use of Psorinum to which I want to call your especial attention is in asthma. In this troublesome disease we find a most unusual and peculiar symptom when Psorinum is the remedy, viz.: The patient is *worse* in the open air,

worse from sitting up, and *worse* from leaning forward. He must lie down with the head low and with his arms stretched out from his body—cannot tolerate the weight or touch of his arms to his chest, and his breathing seems better when lying down.

The Psorinum patient is subject to chronic headaches. If he misses a meal, on comes a headache, and he is hungry *during* the headache, but the peculiar thing is that he is *relieved* by eating. He is subject also to catarrhal headaches coming on when the discharge stops (like Dulcamara). He is very sensitive to cold air, especially about his head (Sil.). His scalp feels cold and he wears a fur cap even in summer; wears a shawl or an overcoat in the hottest weather.

Chronic diarrhœa is a prominent symptom of Psorinum. The stools are horribly offensive, involuntary at night; brown, and gushing. This condition is also found in cholera infantum, and many times Psorinum causes a favorable turn in that disease when well indicated remedies fail. One authority says: "In Psorinum we find the haste of Sulphur, the *flatulence* of Oleander and Aloe, and the difficulty of expelling a soft stool (like Alumina, China, and Nux moschata)."

We would think of Psorinum in pale, sickly looking babies, who fret and worry day and night (Jalap), or they may be good all day and scream all night (reverse, Lycopodium).

Comparisons: Psorinum is antidoted by coffee, and Lachesis is inimical. Complementary: Sulphur and Tuberculinum.

Probably its nearest relative is Sulphur, from which it differs in that Psorinum is predominantly a *chilly* patient, while Sulphur is predominantly *hot.* Psorinum is indicated in *chronic* cases when well selected remedies fail to improve; Sulphur, in acute cases.

Psorinum is indicated in conditions in which the symptoms disappear, or grow better in summer, and re-appear or grow worse in cold weather, as, for instance, a chronic cough or a chronic skin trouble (compare Ars. alb., Carbo veg., Lachesis, Sulphur, and Thuja).

In *headache* with *hunger relieved by eating,* compare Anacard., and Kali phos., when relieved by nose-bleed, Melilotus.

In offensive cheesy concretions from the throat, compare Kali mur.

Mentally, the Psorinum patient is very despondent and hopeless; extremely irritable, and wants to be alone. He has fixed ideas, like Thuja, and is so overwhelmingly sad that he makes every one around him miserable. The face is sallow and greasy, or dirty looking (compare Natr. mur. and Thuja).

The time and conditions of *aggravation* and *amelioration* of the Psorinum patient are as follows: *Worse,* before midnight; in the open air; in stormy weather; before a thunderstorm; when sitting. *Better,* lying down; in the room; covering up the head; sweating.

This, then, is a brief outline of the wonderful effects of which this drug is capable. Objection may be made as to the *source* of these remedies; in reply, I will simply quote one authority who has so well stated the facts, namely: "Whether derived from purest gold, or purest filth, our gratitude for its excellent services forbids us to inquire or care."

DISCUSSION.

Dr. E. P. Snyder: I want to cite a case of melancholia that I once treated. After studying the case thoroughly I gave Sulphur without getting any results. I changed the potency and gave it higher and still failure. I consulted a colleague about the case and he suggested giving Psorinum high. I gave a dose of this remedy without any apparent benefit and after waiting a couple of weeks I gave Sulphur again, but instead of giving it in the two hundredth I gave it in the C. M. I am not sure whether my results were due to the Psorinum or not, but I do know that the patient recovered. He is now well and has had no return of his trouble.

MEDORRHINUM IN CHILDREN'S DISORDERS.

JULIA C. LOOS, M. D., H. M., HARRISBURG.

Study of Medorrhinum and of the children whose condition calls for this remedy impresses upon the physician that "the sins of the fathers are visited upon the children to the third and fourth generation." Such study forces upon our attention the very widespread results of what Hahnemann described as the miasm, sycosis, im-

poverishing the very vitality of the best intentioned people living and blighting the homes of the most virtuous.

Much as we may attempt to ignore or to ridicule the idea of regulating the treatment of patients by what has come to them by inheritance, much as any one of you may scorn the suggestion that a constitutional disturbance underlies the acute manifestations of disorder, however ridiculous it may appear, to talk about a constitutional remedy that will be required to clear out a variety of ailments which an individual may suffer, study of remedies justifies all that. Study of patients and nosodes reveals that if we woud do for our patients all that is expected of physicians, if we would free them of recurrent disturbances we must recognize just what Hahnemann taught after twelve years of investigation.

When he had succeeded repeatedly in dispelling promptly and mildly, many acute troubles and found them recurring and finally not yielding to the remedies previousy beneficial in the same disorder in the same individual, he sought an underlying disturbance. Then he discovered and revealed the scope of the three chronic miasms.

Medorrhinum is one of the remedies to be considered when apparently homœopathic remedies do not give proper results or do not hold results gained, when the same disorder takes different forms in successive recurrences in the same individual, when convalescence fails to occur after acute disorders or no definite image can be formed, in children of gouty, rheumatic or catarrhal parents. In such constitutions compare the symptom-image with provings of Medorrhinum.

CONSTITUTIONAL AND CHARACTERISTIC.

The following are the symptoms of Medorrhinum provings which have been observed in children. Many symptoms belonging to the remedy have not been included because only the children are under consideration, in this presentation:

Head disproportionate size for the body, in infants. Child cross during the day, exhilarated, wants to play at night; irritable over trifles, impatient. Fretty, moaning, crying, good only when asleep; mental anxiety, evidenced in fretty restlessness and expression of discomfort and unhappiness, even in infants. Sensitive to criticism

and correction; imagines has been harshly treated; morbidly over-conscientious over trifles; weeping disposition, can scarcely speak without weeping. Fear of the dark.

Skin colorless, marked pallor, transparent appearance, waxy; fingernails pale; sclerotic blue. Anæmia, leukæmia, blood whitish from excess of leucocytes; mucous membranes and gums pale. Eruption of single, white, desquamating spots, often on red base, clustering at the edge of scalp, on front and back of thorax, on thighs; superficial raw spots on infants' faces, as if a sharp fingernail had dug out the cuticle moisture oozes, crusts over but the child picks at them repeatedly and they may continue for years. Perspiration copious, especially on head, especially on exertion and during sleep. Sensitive to drafts; disposition to effects of cold; aggravation from bathing, also at sea shore, in damp weather and in spring. Dwarfed in development, dentition, locomotion and speech delayed. Enlarged lymphatics, glands swollen, painless, hardened, especially cervical, jugular, axillary and inguinal. Catarrhal condition with greenish discharge. Bone affections through periosteum and soft parts, with repair of tissue, not destructive caries; rachitic condition. Hungry, even after eating. Weakness, too weak to stir; infants many months old, carried on pillows; lazy, averse to motion and activity. Awkward legs, restles legs; travels all over bed, from head to foot. Sleeps with hands over head, reclining on back; sleeps with knees drawn up, back hunched up with face in pillow. This has been observed in no other remedy. Cough and other symptoms ameliorated in this position. Emaciation, marasmus. Digestive and nervous disorders. Lack of reaction to carefully selected remedies. Coryza with constant white, watery discharge; recurrent coryza; nostrils sensitive to inhaled air; post-nasal obstruction, mucus thick, white, yellow or greenish. Adenoid development. Laryngeal disorders; dryness of larynx occasions spasms of glottis and cough on beginning sleep. Cough dry, rattling in thorax, almost incessant; aggravation at night; on beginning sleep; reclining; ameliorated reclining on abdomen or forward with knees drawn up. Thorax sore to touch, worse from motion or respiration.

Diarrhœa; evacuations of mucus and serum, jelly form of mucus mostly mucus, bilious, greenish yellow, thin cream colored, often becoming green after evacuated, as of chopped greens or chopped

boilëd potatoes and greens, offensive odor as of old cheese, decayed meat or eggs, scanty or copious; involuntary evacuations; oozing of green, watery discharge, odor of fish-brine. Diarrhœa and vomiting, with intense emaciation. Desperate condition in intestinal disorders; cholera infantum with opisthotonus, rolling head on pillow.

Constipation with dry, round, hard lumps; masses resembling clay, much straining to evacuate rectum. Leans back to strain.

Mouth ulcers, offensive odor; offensive odor in morning; teeth serrated. Thirst. Vomiting mucus, bile, sour, bitter; without nausea; urine frequent, copious, offensive, dark; cuticle on surface, acrid leucorrhœa in small girls. Constipation, with dry, round, hard lumps; masses resembling clay; much straining to evacuate rectum. Leans back to strain.

Mouth ulcers, offensive odor; offensive odor of mouth in morning; teeth serrated. Thirst. Vomiting mucus and bile, sour, bitter; retching; vomiting without nausea. Stomach pains intense. Urine frequent; copious, offensive, dark color, cuticle on surface. Leucorrhœa acrid in small girls. Extremities thin and weak; abdomen may be large.

ILLUSTRATIVE CASES.

The following cases, treated during the past year, serve to illustrate how these symptoms are grouped in individuals also illustrate the action of the remedy in actual use:

Case I.—Girl, 2½ years old. Head large, in proportion to body since birth. In early months, much digestive disturbance, intestinal pain, lack of nutrition, general anæmia, pallid, transparent skin, blue-white sclerotics, face sometimes gray with red eyelids and lachrymation, especially in open air. Head drawn back during sleep, in early weeks, rolling head on pillow and generally restless when awake. Later, restless during sleep, all over bed from head to foot. Perspiration copious over entire body, during sleep, pillow soaked from it. Weight at birth between eight and nine pounds. At five months had gained but two pounds. At age of one year, anterior fontanelle open to length of one inch, no teeth erupted, no efforts to use feet, even to press upon them, flesh flabby. Eruption about buttocks of clusters of red rash, at times dry and scaly. Cervical glands

in jugular region enlarged. Respiration obstructed by adenoid development. Fed at that time on cow's milk modified with malted milk. Mentally alert and inclined to be precocious. Sensitive paroxysms of nervous weeping. In this first year there was no practical, continued improvement in her condition, carefully observed and treated with what appeared to be homœopathically indicated remedies. The cervical glands on both sides of the neck. In July, 1907, Medorrhinum was administered. This was followed by diarrhœa of yellow, mushy, offensive evacuations and later, eruption in large splotches, spread from head over entire body. These led to an error in prescribing, when the action should have been permitted to continue. After Calc. ost. and Silica, the gland on right side of neck suppurated, discharging thin, green and thick curdy masses without pain. The tumor on left side of neck continued to increase to the size of 2⅜ inches x 3⅞ inches protrusion from surface of neck. At this time, January, she had six teeth in front of mouth, four back teeth on left side and no teeth on right side. She weighed 25 pounds, was able to stand, but fearful about walking alone, chattered much unintelligibly, speaking a few words clearly and presented a very irritable, fretty disposition. The mother reported at that time, that she reclined much on the abdomen and frequently with knees drawn up and face in the pillow. Review of the record revealed that the first real reaction occurred after Medorrhinum and this was repeated. Decided activity in the glandular tumors followed, accompanied by improvement in the child. By softening, absorption and suppurative discharge of greenish yellow, offensive, partly bloody, fluid and white, curdy masses the entire mass was reduced so that no swelling was observed by inspection, in May, some slight swelling revealed by palpation. An irregular, dull red scar gradually fading in color marks the site on each side of the neck. On the right side there is a small, softer enlargement posterior to the old one, though not increasing now. The child is far from complete restoration to health, but vastly improved. In May, brain manifestations led to the use of Lycopodium, which proved beneficial as an intercurrent. The mother of this child was under observation and treatment all during and at times before her pregnancy. Both parents are especially fastidious. Careful investigation into the family history reveals no evidence of sycotic infection in either of

the parents nor in the grandparents on one side. From all that could be learned, the conclusion was drawn that the miasm was transmitted in this case through three generations. The nosode has changed the physical condition of the child, which presented anything but a hopeful prognosis for her future life.

Case II.—A sister of the first, has presented less defined image of disorder, having profited by the lessons gleaned from the older child. She has suffered from the intestinal disorder, having had one serious siege of cholera infantum in her second summer and presents general slow development. She has afforded an opportunity to observe a variation in the characteristic posture of Medorrhinum, when too young to assume that. Her characteristic sleeping pose, in infancy was on the back with the legs flexed at thighs, feet high in the air and legs erect. This position was maintained in spite of all efforts of her mother to induce her to change. Many of the characteristics of the sister exist, but less of disorder manifestations.

Case III.—A boy, who was two and a half years old in March when he first received Medorrhinum. All winter he had suffered from cough, scarcely recovering from one siege of tracheal or bronchial catarrh before a fresh one developed. Twice during the winter there were serious sieges of capillary bronchitis, promptly responding to Ant. tart. In March his mother reported that he always prefers to sleep on his knees and face, even if he reclines on back on first going to bed. Review of his record revealed the following features, which are consistent with this peculiar posture. In the first weeks of life he suffered much from intense flatulent intestinal disturbances. Scurfy eruption on scalp and face persisted for months and clusters of white and red rash spotted the buttocks. He was of nervous temperament, mentally precocious, fretful and irritable, often screaming much at night. Diarrhœa much during the first year and in its last month occurred a desperate siege of cholera infantum, with green mushy mucous evacuations. Urine acrid, ammonical odor, chafing the skin wherever it touched. Perspiration copious always, awake or asleep on slightest exertion, soaking the pillow in sleep. Catarrhal tendency, developing acute exacerbations without apparent provocation. Tendency to green, mushy, mucous diarrhœa. This child has pale, anæmic skin, with often highly flushed cheeks. There has been the same unsatisfactory result from treatment usually found

when the underlying disturber is not reached. Positive knowledge of the parents, both of whom were under observation and treatment before the child's conception, reveals absence of sycotic infection in the parents. Family history leads to suspicion that it probably occurred three generations before the child under consideration, evidences of inherited miasm existing in the intervening ones. After Medorrhinum this child enjoyed a longer freedom from any cough than he had previously experienced through the entire winter.

Case IV.—A boy of eight years, whose father suffered sycotic infection in early life and supposed himself cured through palliative measures. In his first year this child was the victim of intense marasmus and suffered tendency to diarrhœa, ever since, aggravated by eating fruit. Evacuations part watery, part formed, yellow, offensive. Subject to enlarged tonsils since five years of age, effects of cold always manifested in increase of size of tonsils, which remained large and reddened between times. Sometimes cervical glands also temporarily enlarged. Perspiration copious on neck and head. Weeping disposition, at times irritable. Conjunctivæ reddened; appetite very poor. After pertussis, cough remained for months. Child thin, spindling, with pale, anæmic skin. After Medorrhinum cough disappeared, tonsils, appetite, diarrhœa, sleep, disposition, eyes, all improved during the next two months so that he is quite altered.

Case V.—A girl of three years, whose father supposed himself cured of sycosis before marriage. Eruption of small vesicles in clusters on red base on back, neck, shoulders and upper arms, more prominent afternoon and night, after bathing and at times after sleep; itching. Skin rough, scurfy, mottled after bathing. Face often milk white, always pale. Conjunctivitis with lachrymation, thick, yellow discharge in mornings. Coryza with greenish yellow, thick discharge. Hands cold in morning, lips bluish. Neck glands swollen temporarily, with cold effects. Walking and dentition delayed. After Medorrhinum, improvement was decided, even a siege of pertussis was mild and occasioned no retard in improvement.

Case VI.—A girl, at three years of age, presented history of diarrhœa in early infancy, during many trials with artificial foods. Constipation followed and persisted, straining to evacuate large masses of agglomerated balls of various colors. Appetite variable. Pre-

ferred milk, deglutition of solid food appeared impossible after it was masticated. Covers kicked off at night, appeared too warm when covered. Eruption on red base, on nates; at times successive crops of furuncles on nates. Urination in first sleep, ammoniacal odor. Dentition delayed until eleven months old, then suffered meningitis during dentition. Disposition whiny, fretty, inconsolable, sensitive, screaming when irritated. When not in disorder has a sweet temper. Tired, cannot be induced to play out-doors, remains indoors from choice. Sepia improved this child for a few months, then its action ceased. She was peaked, tired, cold in summer. Then Medorrhinum carried on the work and in every way improvement was marked. This was given after considering the father's early life. During a siege of pertussis, Cuprum and later Nux vomica were very beneficial, the constitutional following with excellent results.

Case VII.—A boy was presented at the age of four months, weighing sixteen and a quarter pounds. There was much to suggest Calc. ost. in him in the next five months, in appearance and perspiration and dentition. The chief complaint was constipation, irregular evacuations, two days at a time without any, then two or three a day of light yellow, watery, offensive evacuations with white curds, sometimes with green streaks or mucus, voided with straining and pain. Vomiting of curdled milk. Jerking on beginning sleep, throwing arms and legs during sleep, taking only short day naps, waking in fright. Calc. ost., Pulsatilla and Silica were used in succession with temporary relief. Because of absence on a visit, he was not seen for many months until he was eighteen months old. Slight change from the previous history was observed. Diarrhœa continued for a month, evacuations similar to those described with acrid nature, and lumbricoid worms. At length the peculiar posture of Medorrhinum was reported, the father adding to the evidence that he remembered having slept that way himself in boyhood. In his boyhood he was so weak and prostrated by least exertion that he was expected to leave this world at any time. By determination, he trained himself into a walker and thus forced himself to exercise in open air until he became robust. General improvement followed the use of the remedy, the evacuations assuming form and normal color within two weeks. The position in sleep was also changed. At twenty-two months, began evidence of inco-ordination of lower

extremities, followed by actual innervation loss in them. This progressed to a very serious internal hydrocephalus, during which he was powerless to sustain any exertion, unable to open the eyes and manifesting absolute indifference to all surroundings. Cina at length delivered him from this and all functions were regained, locomotion being the last, this having been the first manifestation. Since that time Cina and Medorrhinum have been of benefit to him, the chief complaints being his very erratic temper and frequent, often involuntary urination, day and night.

Inquiry of the physician who formerly treated the father and all that family for many years, revealed no knowledge of sycotic infection in the two preceding generations to this child, though the father presented the Medorrhinum evidences above mentioned in his youth.

Case VIII.—A sister of the last, now five months old, who has been exhibiting diarrhœa, of yellow, watery, acrid evaucations, or yellow, mushy, becoming green after evacuated or green, watery, with white curds and clear lumps of mucus, copious or scant, sometimes only a stain. At first there was much painful straining, later this was absent. She is at times, fretful, uneasy, indefinitely restless, though much less troublesome to attend than was her brother. She weighed sixteen pounds at three months. At first it appeared that Nat. sulph. was her best friend in remedies, but this held control only for a short time. Ten days ago she was given Medorrhinum, with improvement following, manifested first in her disposition.

Case IX.—This child weighed four pounds and a quarter at birth and during her first week lost a quarter pound. As you see her today she weighs seventeen pounds. In her first summer, last year, she required constant care as a marasmus child. Feeding was a problem, for, deprived of her natural food through lack of quality and quantity in the supply, she very cheerfully, but persistently refused cow's milk prepared in the usual way for infants. When she was starving, apparently, she refused to permit the nipple to be placed in her mouth, to take milk? She was always satisfied for a while after taking one of her sugar powders and found water comfortable. One day, after a period of more than an hour spent in persistent, continued crying, with the most appealing look of hunger in her eyes and refusal of everything offered in the way of food, pap milk, water, salt, a taste of ordinary sugar was given. This

supplied the craving and instantly her crying ceased and did not resume for an hour. Bovinine was then received with pleasure and this with Eskay's food milk, served her for months. Although restless and uneasy, she was disposed to be cheerful and playful when in the least comfortable. She was a mental precocity, alert and active. Constipation was her constant ailment and source of sorrow to the household, who considered that feature the cause of all her troubles. After two or three days without an evacuation, there would be one of hard, green mass, or mushy, watery, with flatus of offensive odor. Such flatus also was passed without other evacuation. Study of the leading features through many changes resulted in her having many remedies, one after another. Improvement was temporary and she gained very slowly, her interest in feeding being very variable. From time to time symptoms of brain disturbance were present, rubbing head, rolling it, crying out in sleep and jerking in sleep. Perspiration was copious in sleep. Disposition sensitive, changeable, easily offended, usually gay and playful in evening, late beginning sleep. When not gay, very irritable and appealing in her cries. During January of this year she survived a siege of capillary bronchitis, measles and on the last day of the month, in the midst of play, surprised her mother with a convulsion. This was repeated next day at intervals of from one to two hours, finally yielding to Cicuta. Five weeks later, on the day she was one year old, convulsions began again and after a night's cessation, continued the next day every hour or less almost without variation. Careful study, this time revealed the image of Opium in the spasm. This remedy appeared so similar and yet so slow to bring results, that it was decided, with Dr. Gladwin in consultation, that something underlying the apparent condition was interfering with the apparent homœopathic remedy. Tuberculinum was administered after further study, though one interval was extended beyond the usual time of the spasm's return. Since that no spasm has appeared for a week, everything progressed beautifully, then the old constipation returned. Large masses within the anus slipped back instead of being evacuated, in the efforts of hard straining. At this time attention was also directed to the posture in sleep, which was on the back with arms above the head and feet in the air, the legs flexed only at the hips. Use of Medorrhinum in this case ended the story of terrible strain-

ing with hard fecal masses, which had been heard not only of this child, but of her mother and grandmother. Continued improvement has followed. Cina, for nervous manifestation, and Cham. for earache once, have been beneficial. Her first tooth was erupted after she was thirteen months old. Her creeping began after her fifteenth month and only last month did she walk with any certainty and confidence. In her humorous antics she is a constant circus performance to her family, but she does not talk in our language.

The parents of this child and a brother of her mother were marasmus babies. Careful inquiry reveals no suspicion of infection in her parents, but family history leads to suspicion that it occurred three generations ago. Both parents are excessively nervous and anxious and disposed to fret and were particularly solicitious because the first child born two years before this, weighing over eight pounds, had died at four months after beginning life similarly to this one.

All these cases are in good families where every known attention has been given to the rearing of the children and on the surface there appears no reason why the children should not thrive easily. Acquaintance with remedies and transmitted miasms reveals much below the surface and will be of value in dealing with hundreds of children whose complaints rest on just such obscure basis as do these.

DISCUSSION.

Dr. M. A. Wesner: I think this paper is a good one and I can add nothing to it.

Dr. A. P. Brown: The writer of this paper is certainly to be commended, because she not only gave the symptoms of the remedies, but afterwards gave the actual cases that had been helped or cured by them. In homœopathic therapeutics you have first to select the remedy and then show its progress. There is not enough of this sort of work done.

Dr. J. H. McClelland: I would like to ask where the symptoms of this remedy were obtained.

Dr. Julia C. Loos: The provings of this remedy are recorded in the Transactions of the A. I. H., after having been undertaken by Dr. Allen. It is also treated in Dr. Kent's literature and also in Hering. The potencies used in these cases were one M. and C. M.

Dr. Frederica E. Gladwin: Dr. Loos says the influence of sycosis extends to the third and fourth generation, yet it has been determined that gonorrhœa is a germ disease. Is it possible that we have something to combat in contagious diseases besides the germ?

Years ago a little child, three months old, was brought to my clinic. He had been a nice, plump baby when born, but now was emaciated to an extreme degree. His face was so wrinkled that he looked like a little odd old man. He was ravenously hungry, vomited curds soon after nursing, profuse sweat at night; diarrhœa, stool profuse, watery; Calcarea stopped the diarrhœa for a month, but the baby did not improve as he should. The diarrhœa returned; profuse, spurting clear across the bed, vomiting, sweating about the head after nursing. Podo. gave little relief. Then the mother told me that all the neighbors were telling her that her baby would die and she had better change doctors, but she told them that her other child had been worse and I had cured it without even seeing it, for she was living in Atlantic City at the time; therefore, she knew I could cure this child, if any one could. I had forgotten all about the other child, but being reminded of the fact, I said to myself "two babies that present a complete picture of marasmus and a third one dead, what is the cause?" I gave the baby Medorrhinum. In five weeks it had gained five pounds. It continued to improve on Medorrhinum for several months, when new symptoms appeared, which required Puls. The boy has passed through several of the children's contagious diseases since just as well as other children and is now a sturdy lad of ten years. Nothing gave him real improvement until he had the Medorrhinum and then the improvement was so marked I can but feel that it saved his life.

SOME EXPERIENCES WITH THE NOSODES.

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In a little discussion on the use of the nosodes a few days ago, a physician whose reasons seem well founded, declared that if the nosodes were used at all, they should be administered hypodermically, because the gastric juices so changed drugs of that class that the results could not be depended upon.

Injecting a remedy directly into the blood does not necessarily alter its homœopathic action, but it is objectionable to use the same syringe for potentized remedies no difference how thoroughly it has been cleansed, and it would be both expensive and inconvenient to carry a syringe for each remedy used. On the other hand, when one uses a single dose of the thirtieth and higher potencies enough is absorbed in the mouth and œsophagus to do the work. At any rate I have had good results from the nosodes administered per oram, and this short paper will treat only of carefully selected conditions where these remedies have been successfully used.

Psorinum is the nosode most frequently prescribed, because it has a symptomatology very similar to that polychrest, sulphur. The discharges of psorinum are even more offensive than those of sulphur, its eruptions more repulsive, its sweats, filthy habits and emaciation more pronounced. It is a slum child remedy, one that I used much more in my dispensary than in private practice. The majority of the children of the poor who live in the crowded tenement district are dirty, but it is the scaly, scabby, filthy children, offensive both in habit and appearance who need psorinum. In the upper walks of life the psorinum and sulphur patients are less filthy, not that they love to bathe the more, but because of their training and environment they are obliged to keep clean. When you find children of this class, thin, nervous, listless, cranky, whining all the time, think of psorinum. It is an excellent remedy for cross babies, when there seems to be very little the matter and other remedies fail.

The most pronounced action of psorinum that ever came under my observation was in a case of typhoid fever, where the temperature bid fair like Tennyson's brook, "to go on and on forever." The child who was about eleven years old was emaciated to a shadow. All through her illness she was sleepless, restless and delirious. In the seventh week she was still tossing from side to side on the bed, whining continually, and picking at her fever-burnt lips. One dose of psorinum soothed her like an opiate, and in a few days her temperature dropped to normal. This occurred in my dispensary practice years ago in Philadelphia. My assistant had the case, and the psorinum was given at the suggestion of Dr. Straube.

Diphtherinum is worth considering as a preventive of diphtheria. I use it in the thirtieth potency, one dose every day for a week or ten days, and it has yet to fail me. Due allowance must be made for a

limited number of such cases in my practice, the early isolation of the patient which reduces the danger of contagion to the other members of the family, and that children exposed to the disease frequently escape, even when no preventive measures have been taken. In three large families where there was no opportunity to isolate the patient, hence continued exposure—diphtherinum was used, and no other cases developed.

Tuberculin is indicated in phthisis, when the cough is hard, sounds dry, but a profuse yellow sputum is raised with difficulty. It gives great relief from night sweats when the other symptoms agree.

My only experience with Medorrhinum has been in chronic pelvic disorders of women, and there it seems indicated when there is an offensive yellow, watery, leucorrhœa, offensive menses, and chronic pains in tubes and ovaries. I began using it for such patients in sheer desperation because everything else had failed.

We find the nosodes often indicated in chronic skin disease. And why not? Are not the large majority of diseases of the skin an almost infallible indication that the victim was born with a heritage the Lord never intended him to have? Syphilis, gonorrhœa and tuberculosis are the most universal diseases known, and they have so weakened the human race that there is scarcely a family without some mark of struma upon them.

We do not agree with the prevailing idea that "a nosode should be prescribed for the result of a disease, just because it is the product of a disease." They should be prescribed when indicated. But we do believe that we will find them indicated even to their peculiar symptoms and aggravations, in patients, tainted in some remote manner with the diseases of which they are a product. Tuberculosis is not an inherited disease, but the children of such parents are born tired, with lax fiber, low recuperative powers, and susceptibility to change in weather and disease in general. Young girls of such type are frequently afflicted with acne, and notwithstanding claims made in this body on former occasions by some of our most learned men; their complexions clear up under tuberculin or bacillinum better than with the use of the flesh brush. I have known girls, most particular in their habits, to scrub and scour and steam their faces most persistently with no results until they received the indicated constituional remedy.

Syphilinum you will find of use in old chronic cases where the skin

is rough, indurated, scaly, with large reddish brown itching patches something like psorinum. In eruptions on very young babies when the stools are bright yellow syphilinum is better than sulphur.

Psorinum, of course, has a very decided action upon the skin, and cures boils, urticaria, scaly or pustular eruptions in dirty, greasy looking individuals when the itching is aggravated by the warmth of the bed. Remember also its use in suppressed eruptions in nervous, debilitated subjects, easily startled and with great depression of mind.

The nosodes have indeed been a valuable addition to my list of remedies, and though my use of them has been confined to a limited number of selected cases; doubtless more thorough provings would add materially to their ranges of action.

REPORT OF THE

SECTION OF PATHOLOGY AND PATHOLOGICAL ANATOMY.

The Pathology of Certain Intra-Uterine Conditions in Relation to the Use of the Curette, by N. S. Betts, M. D.
Chorio-Epithelioma, by Mary A. Cooke, M D.
A Case of Melanotic Angio-Sarcoma, by H. M. Gay, M. D.
The Pathology of Para Typhoid, by W. A. Haman, M. D.
Methods of Living Which Result in Pathological Conditions, by R. E. Tomlin, M. D.
The Law of Immunity and Homœopathy, by W. H. Watters, M D.

THE PATHOLOGY OF CERTAIN INTRA-UTERINE CONDITIONS IN RELATION TO THE USE OF THE CURETTE.

NORMAN S. BETTS, M. D., PHILADELPHIA.

Since Récamier, about 1850, called the attention of the profession to his uterine curette, the use of this instrument in denuding the uterine cavity has become the most frequent of gynæcological operations. The markedly good results in appropriate cases and the ease with which the operation is performed have so popularized the instrument that there has developed some tendency to forget or disregard the contraindications to its use. Especially in puerperal infections the indiscriminate use of the curette has done a vast amount of harm. So often is this the case that it has become the opinion of many eminent gynæcologists that curettage has, perhaps, in the aggregate done more harm than good in this class of patients.

What conditions call for the curette, and when is it contraindicated? How shall we interpret our findings, and what prognosis can we give from them?

I believe these questions can be properly answered only by a careful study of uterine pathology. When we have some idea of the endometrial changes which commonly result in metrorrhagia, the difference between a sapremic and septic puerperal uterus, the local in-

fluence of a submucous fibroid; or the effects of chronic inflammations, gonorrhœa, syphilis, tuberculosis, or arterio-sclerosis upon the endometrium, then, and then only, can we have a truly scientific basis for treatment and prognosis in such cases.

In the following paper I wish to consider from a pathological standpoint a few of the diseases to which the endometrium is subject, pointing out, if possible, how and to what extent curettage may be curative.

We will remember that the cervical portion of the uterus which is visible in the vault of the vagina is covered with many layers of squamous epithelium and is ordinarily devoid of glands. At the external os this covering is usually replaced by a single layer of high columnar cells, which are continued upward as far as the internal os. The point of junction of these cells with the stratified epithelium of the portio vaginalis is subject, however, to considerable variation; in adult life, especially in multiparous women the squamous epithelium tends to extend upward into the cervical canal until the lower third or even at times the lower half may be lined by it. In women who have borne children the lips of the cervix are often considerably everted, thus bringing into view the soft, reddish columnar epithelium of the canal, which shows in marked contract to the surrounding pale squamous layers. This so-called ectropion of the cervix was formerly often mistaken for an erosion and so treated. Such a mistake will not occur if the physician will observe that these areas show no tendency to bleed nor any induration. Scraping and the application of caustics have no permanent effect in this condition, though they may temporarily mask by stimulating cell proliferation.

Treatment consists in the reduction of uterine engorgement or in repairing cervical lacerations which frequently exist, and which have permitted the turning out of the mucosa. In cases where no symptoms are present treatment is unnecessary. A true cervical erosion, we may say in passing, is a comparatively rare condition, and much more infrequent than is generally supposed.

In the body of the uterus the epithelium and glands lie upon a bed of small, densely packed connective tissue cells, the interglandular stroma. This tissue is abundantly supplied with small arteries, larger veins and lymphatics, features which are of importance in a consideration of the dissemination of septic infection.

The stroma cell has no counterpart in other portions of the body,

and this, with the exceedingly rich lymphatic supply, has resulted in some difference of opinion as to the exact nature of this tissue. As high an authority as Leopold has said: "The uterine mucosa should be considered as a spread-out lymph gland (lymphdrusenfiache) which does not contain true lymph vessels, but consists of spaces lined by endothelium." Grossly the endometrium should normally appear as a pinkish, velvety membrane of uniform thickness of not more than 3 m. m. (⅛ in.). Most pathological changes result in alterations in these characteristics which are readily recognizable to the naked eye.

A very characteristic lesion, though of obscure pathogenesis, is the so-called polypoid thickening of the endometrium. Clinically, this condition is characterized by profuse hæmorrhages, especially about puberty, or the menopause, and often without other symptoms or apparent cause. The endometrium in these cases is irregularly thickened, presenting dilated glands often visible to the naked eye, and greatly distended veins which cause an intensely congested appearance. The large amount of tissue removed by the curette may suggest malignancy, which may, however, be distinguished by the smooth, velvety, uniformly translucent appearance of the epithelium. Cases of this kind usually require repeated curettements until the atrophic changes of the menopause have taken place. In young persons several denudations may result in a permanent cure, but at times the hæmorrhages become so frequent and severe that hysterectomy is necessary. In my reports of pathological examinations in these cases I always note that subsequent curettages will probably be necessary.

Another cause of intractable hæmorrhages without permanent benefit from curettement is the so-called metrorrhagia myopathica, a recently described disease which is apparently due to a hyperplasia of the media and adventia of the uterine vessels, the intima and lumen remaining unaltered. With these changes there occurs a fibrosis of the uterine muscle which interferes with the normal contractility of the organ and the control of its circulation. In the case of both the vessel walls and myometrium, the production of connective tissue occurs at the expense of the elastic tissue fibres, which are almost entirely destroyed.

According to Anspach, of Philadelphia, a diagnosis of metrorrhagia myopathica is justifiable under the following circumstances:

The patient is at or near the menopause and has borne children. Physical examination shows an enlarged and softened uterus with patulous os. All other causes of hæmorrhage can be excluded and the usual therapeutic measures are unavailing. Endometrial changes frequently accompany the disease, but thorough curettement has no effect upon the flow.

Much confusion has resulted from the lack of uniformity in our understanding and use of the term "*chronic endometritis.*" From a purely pathological standpoint, using the term in its strict sense as a chronic inflammatory reaction in a mucous membrane, chronic endometritis is certainly an infrequent disease. What is ordinarily termed chronic endometritis is in the majority of cases an hypertrophy of the uterine glands and epithelium. While Kelly and Cullen recognize but two varieties of endometritis, acute and simple chronic, both of which are rare, such terms as polypoid, hypertrophic, hyperplastic, catarrhal, interstitial, glandular, universalis, fungoid, suppurative and tuberculous, have been frequently used. Noble considers that a reliable classification is into glandular, interstitial and the combined types. It would seem rational to use the same terminology here as in the case of mucous membrane inflammations in other portions of the body, discarding entirely such adjectives as hypertrophic, hyperplastic, polypoid or fungoid, conditions which show none of the true inflammatory reactions.

The cause of the confusion probably lies in the clinical similarity of many of the so-called subvarieties and the difficulty in differentiating them without the microscope. Other things being equal, the curette is indicated and is usually curative in the above conditions (except the suppurative and tubercular), because the operation removes all diseased exuberant or inflamed tissue down to the uterine muscular wall, allowing a new, normal endometrium to be developed by proliferation from the minute islands which have escaped the curette in the interstices between the muscle bundles. An essential part of the treatment consists in the thorough application of an antiseptic to all parts of the denuded surface.

The chief contraindications are pelvic peritonitis or abscess, ectopic pregnancy, the menstrual flow and pyosalpinx, unless the procedure is immediately followed by an operation to remove these complications.

Hæmorrhages in cases of submucous fibroids usually occurs from

contiguous portions of the endometrium, which have become hypertrophic from the mechanical influence of the growth, the endometrium immediately overlying the tumor being thin and atrophic. Curettage is often contraindicated or unsatisfactory, unless the nodule is very small and can be enucleated, because it is frequently impossible to remove all of the endometrium, and if the tumor capsule be opened there is danger of sloughing.

Gonorrhœal invasion of the endometrium usually results in chronic endometritis, the organisms penetrating to the deepest portions and causing the usual pathological picture of chronic mucous membrane inflammation of infectious origin. A number of observers have demonstrated the gonococcus in the spaces between the muscle bundles of the myometrium which in some cases may explain the chronicity and tendency to recrudescence of the disease even after careful treatment.

Syphilis is said to produce more or less hypertrophy of the entire uterus in addition to the endometritis, which is a frequent accompaniment. It has been claimed that a curettement immediately before conception will act as a prophylactic against miscarriage, and I would be inclined to doubt the efficacy of such a procedure, since, though it is conceivable that the endometritis may have an influence in causing miscarriage, yet it is generally understood that the death of the fœtus and its consequent expulsion in these cases is the result of a lack of adequate food supply in the chorionic villi due to a syphilitic obliteration of its vessels.

Tuberculosis of the endometrium is too extensive a subject to properly consider in a paper of this kind. Let me note only that the disease is usually secondary to tubal tuberculosis, so that even in cases of slight endometrial involvement an extensive intra-abdominal operation is usually necessary.

The field of the curette in these cases usually lies in its employment for diagnostic purposes.

The role of curettage in obstetrical complications, especially in puerperal infections, is a subject of great practical importance, as well as one concerning which considerable difference of opinion has existed.

With the exception of the milder cases following abortion or miscarriage, curettage for pyogenic infection has deservedly fallen into disrepute by the best modern obstetricians. The reason for this is

readily understood by a study of the pathology of the puerperal infections.

The principal organisms which have been demonstrated to be causes of post-partum sepsis are the streptococcuc, staphylococcus, gonococcus, bacillus coli, b. typhosus, b. aerogenes capsulatus, and b. diphtheriæ. Besides these bacteria, complications are at times produced by the inoculation of the endometrium with saprophytic organism, which show no tendency to invade the surrounding tissue but exert their activities only upon the degenerated slough consisting of portions of decidua, placental fragments and blood clots, causing putrefaction of the same. Sections of the uterus in such cases show internally a mass of putrid matter containing large numbers of the organisms, outside this a zone of round cells which completely walls off the infection from the normal muscular layers. Constitutional symptoms in these cases are due to the absorption of the poisons of putrefaction. All the local treatment that is usually necessary is the removal of putrid matter with the aseptic finger or dull curette followed by intrauterine douches of some mild antiseptic or normal salt solution together with the establishment of good drainage, by cervical dilatation if necessary. There is reason to believe that a putrid endometritis alone, that is, without the admixture of some septic organisms, is quite rare.

The most frequent cause of true puerperal infection is the streptococcus pyogenes; other bacteria are, however, common, the pathological anatomy of the lesions varying somewhat with the character and virulence of the offending organism.

In cases of mild septic infection the pathological picture often somewhat resembles that in sapremia, or putrid endometritis. Within an area of necrotic material is a well devloped layer of leucocytes beyond which no bacteria are found, while the opposite surface may show them in quantities.

The initial reaction of the endometrium consists of congestion, œdema and intense infiltration with polymorphonuclear leucocytes followed by coagulation necrosis and sloughing of superficial portions. Subsequent changes vary with the causative organism; the streptococcus and staphylococcus when virulent may produce little local change, having spread rapidly through the lymphatics, producing a systemic infection. Bumm has demonstrated that streptococci may travel through the myometrium at the rate of 2 c. m. in six hours.

In a case recently examined, post-mortem, with Dr. Sappington, the uterine cavity appeared practically clean, though the patient had died over a month after an abortion with symptoms of streptococcic septicemia. Empyema and multiple pulmonary abscesses were present, yet microscopic examination of the uterus showed only small areas of coagulation necrosis here and there in the endometrium and slight round cell infiltration. This lack of marked endometrial change is usual in cases of severe septic infection. Vaginal discharge often entirely ceases, as in this case. Where the infection is a mixed one, such, for example, as streptococcus and b. coli, the destruction of tissue and slough in the uterine cavity is usually extensive. Stained sections show bacteria making their way by the lymphatics throughout the uterine wall, the leucocytic barrier being frequently but poorly developed.

The lesson to be drawn from these facts is as follows: By the time a positive diagnosis of puerperal sepsis is made, or at least by the time the obstetrician is prepared to undertake radical treatment we usually have an endometrium which is bathed in pus, and partially necrotic. Sinuses at the placental site teem with bacteria, the decidual vessels in many instances are also thrombosed with the clots acting as culture media, while the lymphatics are choked with oganisms which are making their way toward the peritoneal surface.

Curettage in such cases cannot possibly reach all of the bacteria, neither can any known antiseptic. By denuding the whole uterine cavity the operator simply increases the size of the wound and offers new culture media and new avenues of access to the invading host.

What surgeon would carefully scrape the cavity of an acute abscess in any other part of the body? Yet hundreds of physicians who would deride such treatment have thoroughly curetted with a sharp curette in puerperal infection. The keynotes of treatment in abscess elsewhere are *drainage*, continuous and free, together with antiseptic irrigation. In what respect do the essential indications differ in the case of the uterus?

Local therapeutics in the ordinary case of post-partum infection from a pathological standpoint consist in the removal of gross masses from the uterine cavity by the finger or a dull curette gently manipulated, thorough irrigation by some clean fluid, be it antiseptic or not, and last but not least, the establishment of good drainage.

The chronic inflammation following miscarrriage and characterized by bleeding on slight provocation is usually interstitial endometritis. Other causes of metrorrhagia are incomplete involution of the decidua and retention of bits of placenta, the latter leading to the development of the so-called placental polypi, which is not a polyp in the strict sense of the word, but merely pieces of degenerated placental tissue around which blood clots have accumulated. In all of these conditions the curette is indicated and is usually curative.

In closing, the author wishes to make a plea for the more universal study of the pathology of our cases, not at the expense of any of the other phases of medical science, but co-related with them, striving not only to cure, but to know why and how and what we cure. I have always remembered a quotation in the preface of one of my text-books: "Felix qui potuit, rerum cognoscere causas," Happy is he who understands the causes of things.

CHORIO-EPITHELIOMA.

MARY A. COOKE, M. D., PHILADELPHIA.

A most comprehensive paper on this very serious, but, fortunately, rare, malady, was presented to this Society by Dr. J. E. James, Jr., at the meeting in 1904, and that article I am in great part indebted for this portion of my paper.

The history of the discovery and differentiation of this disease has been so thoroughly discussed by Dr. James that I will not take your time to go over that ground again.

The term Chorio-Epithelioma has been applied to a very malignant variety of uterine tumor. It may develop after labor, at full term, an abortion or a hydatiform mole. It never occurs except in a uterus which had been recently impregnated, though in the case of the mole it may develop before the mole has been expelled from the uterus.

The differentiation of the condition is of recent date and only as late as 1898 the term chorio-epithelioma was proposed for it, which name has since been generally accepted.

The chorion-epithelion is composed of two layers, the syncytium and the langhan. These have both been demonstrated to be of fœtal origin and are found to be the source of the growth.

The appearance of the tumor is a mass of dark, reddish, very friable material, somewhat cystic, or nodular, with an amount of dark blood entangled in the meshes. In many cases a cystic condition of the ovaries is associated with the uterine tumors. There are often, too, similar growths in the vagina.

It seems in these cases that the normal penetration and absorption of the maternal tissues by the derivities of the fœtal trophoblast (the Langhan layer and the syncytium) is replaced by an unrestrained proliferation of the fœtal cells, associated with a general invasion of the uterine walls. The embryonic cells penetrate the vessel walls and enter the general circulation and so form metastasis.

Histologically, the tumor is made up of blood spaces surrounded by the elements of growth which are divided from both layers of the fœtal ectoderm and possess in an exaggerated manner the peculiar characteristics of those cell elements.

Clinically, the differentiation of this condition from a hydatid cyst is often difficult, but in the latter condition there are no evidences of metastasis.

In hydatid cysts there is cystic degeneration of the chorion and the terminal extremities of the chorion villi are converted into transparent vesicles with clear viscid contents. These vesicles vary in size from minute bodies to that of a grape, and hang in clusters from the villous stems with which they are connected by pedicles. In some instance the hyatidform mole precedes the formation of chorio-epithelioma.

The metastasis may effect the vagina or ovaries, as I have before stated, or may extend to the lungs or brain, and, in fact, almost any organ can be affected.

For some time after the discovery of this disease it was not settled as to whether it was of entirely fœtal origin, but now, at least, the great preponderance of opinion is that it is entirely fœtal.

Kelly says that the presence of metastases is not a contra-indication for operation for chorio-epithelioma, as sometimes after the removal of the pelvic growth the organism is able to take care of them.

The disease is insidious in its onset; hæmorrhage from the uterus is the most marked symptom.

In this connection I think the report of the following case will be of interest:

May 19, 1908.

Mrs. G., aged 39 years, was sent to the Woman's Homœopathic Hospital, with a history, as far as we could gather, of irregular bleeding for some time, and a severe hæmorrhage about two weeks before, which was supposed to be an abortion.

At the time of her coming to the hospital she could not give us a clear history, but later on we were able to elicit facts about as follows:

She had had nine pregnancies; only four children had been born at term, however. One was born dead, at eight months, and, from what she said, we concluded that labor was induced and the child born with instruments, though what the condition was we did not learn.

One other labor was also instrumental and four miscarriages had been in the early months of pregnancy.

She had never had any special trouble at menstrual periods, but had had her children fast; she had sometimes become pregnant without the reappearance of the menses.

Her general health had been fairly good and she had never had to work very hard.

About two years before this illness she had a "pimple" form on the right side of the chest, below the breast, which suppurated and formed an open sore, which took a long time to heal, and left a scar, but seemed to have been superficial.

Her youngest child was two years old. She had nursed it and did not menstruate until February of this year. There was no period in March, but in April the flow came on, stopped and came on again and she had not been entirely free from flowing since that time. About two weeks before coming to the hospital she had had a severe hæmorrhage, and she passed something from the vagina which looked like placenta. A doctor had been called in who thought she had had an abortion, at about four months.

The flowing had continued, but was not profuse. Early in the winter she had taken a severe cold and had been suffering, more or less, since that time, from a cough, and had, at times, a blood-stained expectoration.

I saw her first, late at night, on May 19th; she had every appearance of being a very sick woman. The breathing was rapid and shal-

low and seemed to be painful; indeed, my first impression was that she had pleurisy. The temperature was 99, pulse 100, respiration 30. The heart's action was forcible and the area or dulness increased. She had a hacking cough and a little frothy, blood-stained expectoration. There were rales in both lungs and dulness in lower lobe of both. She complained of pain in her right side, very near the lower border of the ribs. The epigastric region, and especially the region of the liver, was very sensitive to touch, as, indeed, was the whole abdomen, which was a good deal distended. The bowels were loose, stool yellowish, watery and offensive. There was pain in the back, nausea and vomiting, with great thirst. A vaginal examination showed the mucous membrane very sensitive. The cervix was patulous and high up and seemed bound down by adhesions, especially on the right side; there was some dark, bloody discharge from it, which did not contain any clots or shreds and had very little odor.

The fundus was half way between the umbilicus and the ensiform cartilage and was enlarged to about the size of a seven months' pregnancy. The sensitive condition of the abdomen prevented anything like a satisfactory bi-manual examination, though once or twice I thought I made out some of the fœtal small parts and a soft substance feeling something like placenta could be felt high up inside the cervix.

The patient insisted that she felt fœtal movements. She had, from time to time, slight abdominal pains, which made us hope that labor might set in spontaneously.

The urine was scanty and contained epithelia and granular casts; the patient had to be propped up in an almost sitting position, on account of shortness of breath.

She was examined by the senior obstetrician on the morning following her admission to the hospital and it was decided to wait a day or two and see if we could not better her condition, as it seemed dangerous to give her an anæsthetic.

A possible diagnosis of placenta previa was made. In a day or two the cough improved, but the pulse and respiration became more rapid, though the temperature was about normal.

She could keep nothing in her stomach and became much jaundiced. On the third night from her admission she had sharp labor-like pains, sufficient to make her cry out. A slight degree of dilata-

tion of the cervix resulted, but that was all, and the pains became less severe after some hours, but the abdomen was markedly increased in size.

Another consultation was held and it was decided that some effort must be made to relieve the patient, as we felt that the only hope of saving her life lay in immediate action.

The hæmorrhage had not been at all active, merely a little oozing.

A bougie was passed into the uterus, under antiseptic precautions, and a gauze packing inserted. The instrument passed very easily, but caused a rather profuse gush of blood. Some labor-like pains were produced, and in about eight hours a rather profuse hæmorrhage. We found that some dilatation had taken place. At this time the temperature was 97, pulse 124 and respiration 36.

Dr. Brooks, the chief, was summoned, and we decided to act at once. The patient was put under ether, which, contrary to our fears, she took very well, and taken to the operating room. The cervix would admit only three fingers, but with the use of manual dilatation we were soon able ito insert the hand.

There was no sign of fœtus, but the uterus contained great masses of a dark red, friable substance, feeling somewhat cystic, and mingled with this was a large quantity of dark grumous blood. The part which was taken first had something of the feeling and density of placenta, but most of the material was more friable. We were able to scrape off the masses with our fingers. There was a large amount of this material, and, together with the blood, was not less than three quarts. There was a little odor to it. The walls of the uterus were quite irregular, part being thickened and part very thin, so that coils of intestine could be plainly felt, and I at one time feared that I had perforated the uterine wall. The thickened part was near the cervix and this probably accounted for the feeling like some of the small parts of the fœtus during the vaginal examination.

No curette was used, as the patient seemed to be sinking and the uterus felt clean to the touch and began to contract. Hot water irrigation was used and the cavity packed with gauze, which controlled the hæmorrhage. The patient was put to bed, a high saline enema given and heat applied, and we were gratified to see her begin to react.

Immediately after coming out from the ether the temperature was

101, pulse 112 and respiration 34. The gauze packing was removed the next morning, with very little bleeding. The manipulation brought back a return of the vomiting, but this symptom soon passed and did not again return.

At 4 P. M. (nearly twenty-four hours after the uterus had been emptied), her temperature had dropped to 100, but the pulse was 156 and respiration 60. She suffered from abdominal pains and was very weak and restless; I hardly expected her to survive the night. At 3 o'clock the following morning she had a very severe chill and immediately afterward the temperature rose to 105, respiration 60 and pulse could hardly be counted. She had been given Carbo animalis 3x and now received, in addition, a hypodermic of Strych. sulph. and a hot saline enema.

Later in the morning she was decidedly improved, but was semi-delirious for a day or two. In the next twenty-four hours we noticed a marked improvement, and from that time on she continued to gain, although slowly. Her appetite returned and the jaundiced appearance lessened. The cough, too, practically ceased, and she had no bloody expectoration after the operation, although the lungs were not entirely free from rales. There was no more uterine hæmorrhage. The vaginal discharge lessened, at first becoming brownish and offensive, but gradually changed to muco-purulent, with better odor. Twelve days after the operation the morning temperature had dropped to normal and the pulse and respiration had a much lower rate. There was an evening rise of temperature, but she continued to gain.

On June 15th the patient was examined by Dr. B. F. Betts (our consulting gynæcologist), and at that time the uterus was half way to the umbilicus, and the cervix irregularly adherent and thickened. The discharge was muco-purulent and odorless. The ovaries did not seem enlarged to any great extent.

Dr. Betts advised hysterectomy, as he thought the uterine condition was malignant, but the operation was refused by the patient. She was discharged on June 20th, after having been up and about the ward for a few days. At that time the evening temperature was 99, pulse 100, respiration 24. Examination showed breathing sounds roughened; slight mitral murmur; dulness in right lower lobe of lung and flatness over liver. There was also tenderness over liver,

but no pain. The bowels were still inclined to be loose, and there was at times a little difficulty on urination. The urine contained a slight amount of albumen and a few casts.

She received the following named remedies: Nux vom., Bell., Bry., Ipecac., China, Carbo animalis, Arsenicum, Silica, and possibly one or two others for intercurrent symptoms.

I saw the patient on July 16th; she had gained in flesh and strength and the jaundiced condition of the skin had disappeared. Her cough seemed to be gone. I had no opportunity for any physical examination, but she said she still had some discomfort in the abdomen; felt most on ascending steps, etc. There had been no return of the uterine hæmorrhage and no menstrual period had appeared.

Dr. Norman Betts, who made a pathological examination of the scrapings, kindly furnished me with the following report:

"The specimen consisted of a two-dram vial full of tissue resembling placental tissue, but very friable and showing large masses of blood clot entangled in which are chorionic villi. some of which appear normal, but the majority somewhat increased in size; in many instances presenting clubbed ends.

"Microscopical examination. The sections examined consist of villi, which, in many instances, are partly surrounded by a homogeneous tissue, rather densely infiltrated with polymorphonuclear leucocytes and showing here and there hæmorrhages into its substance. Lying around and between the villi are masses of coagulated blood. The villi, in the great majority of cases, are considerably increased in size; the ground substance scanty in cells and avascular. The double row of epithelial cells is everywhere presented and many areas have markedly proliferated, forming large projecting masses or isolated islands of epithelium composed of both syncytial and Langhan cells. In some areas these are apparently invading the blood clots and tissue surrounding the villi.

"The structureless tissue surrounding or lying in contact with the villi in many areas is apparently degenerated decidua, which has undergone hyaline change, but which still shows evidence of acute inflammatory reaction."

Dr. Betts further says:

"The diagnosis from the uterine scrapings, in a case like this, is

often impossible, on account of similarity between chorio-epithelioma and hydatiform mole. In this case the evidence of metastasis, in my mind, proved the former diagnosis, cough and blood-streaked sputum being frequent in such cases."

DISCUSSION.

Dr. N. S. Betts: I do not know why certain cases of this growth are especially malignant and others very benign, or are absolutely cured by the removal of the primary growth, even in cases where metastases have occurred. In the case referred to there were evidences of metastases in the lungs and liver.

A CASE OF MELANOTIC ANGIO-SARCOMA.

H. M. GAY, M. D., PHILADELPHIA.

I offer the following rather interesting case of melanotic angio-sarcoma, it being somewhat rare in its position, method of growth and pathological appearance.

Twelve years ago Mrs. Jennie P., aged forty years, noticed a thickening and pigmentation of the nail of the great toe of the right foot. There was no soreness or pain for about eight years, when there seemed to be set up an indolent inflammatory process, associated with some softening of the matrix, and a slight degree of offensive degeneration. About this time she consulted me. In getting the history of the case, she remembered, some four years before, the thickening commenced, that she had received a bruise on the nail in the course of her household duties. Whether or not this was a factor in the case, is problematical.

I removed the nail under Cocaine anæsthesia and curetted the matrix. The nail at that time was fissured and about three-sixteenths of an inch in thickness, the matrix being somewhat pigmented. The healing was uneventful, but the condition returned practically as before the operation. This removal of the nail occurred in November, 1905. In February of this year she again sought my advice concerning pains which she was having in the leg, mostly from the knee to the hip. Upon examination I found the toe in statu quo,

that is to say, a thickened pigmented nail and a slight degree of pigmentation of the skin underlying the edge of the nail. There was soreness up the inner side of the leg and in the groin in the neighborhood of the saphenous opening I was able to locate two rounded tumors,—one the size of a pigeon egg, the other about a third smaller. I told her that I associated the growth in the groin with the condition in the toe, although with the exception of the infiltrated condition of the skin, before mentioned, there was no evidence of tumor growth there, and I advised her to have the tumors in the groin and the toe removed at once. This I did on the twenty-second day of February. I found that the smaller of the two tumors consisted of three masses bound together, but discrete, that is, there was no infiltration of the surrounding tissues. The tumors were greenish in color,—when cut open they were almost black. I removed the toe at the middle joint and noticed a black spot in the neighborhood of the arterial supply, which I considered as a metastatic infiltration of either the glandular or arterial system. The tumors and the toe were submitted to Dr. Sappington, his report of which is herewith submitted:

"Specimen consists of amputated toe with pigmentation under nail (primary growth) and two large densely pigmented inguinal gland masses measuring respectively 4x2x2 cm. and 3x2x2 cm. Microscopically, sections of the glands show sarcoma cells—large, round, spindle and polymorphous—in great numbers. Many of these are in an advanced state of degeneration. Groups of cells surround well developed blood vessels in mantle form and apparently spring from the adventitia, the intima and media being well preserved. Brown pigment is present in large amount and is principally intra-cellular. It is noted especially in large, epithelioid cells The pigmented areas are very much degenerated and the cells here take the stain poorly. The pigment does not take the iron stain, indicating that it is not of blood origin, but, probably, melanin. Some remnants of lymphoid structure are observed. Connective tissue is in fair amount. The degree of degeneration and necrosis are noteworthy. Sections of the amputated toe taken from the pigmented portion were obtained with some difficulty and showed no tumor growth. The diagnosis is angio-sarcoma (melanotic) perithelioma."

The wounds in the groin healed without incident, but the stump of

the toe was very loath to heal, there being considerable sloughing and evidence of poor circulation. However, and this is the interesting part of the case, the toe did finally heal perfectly and has remained so until this time. All pains in the limb have entirely gone, and there is no evidence of any recurrence in the groin. It is a matter of common knowledge that the melanotic sarcomata are among the most malignant, if not the most malignant tumors. Whether or not this one is the exception that proves the rule, remains to be seen.

THE PATHOLOGY OF PARATYPHOID.

WILLIAM A. HAMAN, M. D., READING.

Among the many new and striking medical terms that, during the past few years have had their birth in our current medical literature, are those having the Greek prefix "para;" parapneumonia, parasyphilis, paratuberculosis, and paratyphoid.

This prefix suggests the meaning attached to the words beyond, beside, accessory to, apart from, against and amiss.

You will, no doubt, have observed that the subjects I have named associated with this prefix are infections and this naturally suggests the proper definition of a parainfection which we find to be the "condition of being affected with a disease whose symptoms resemble those of an infectious disease, but which is not due to the germ of this infectious disease" (Dorland).

Close observation of the course run by thousands of cases of typhoid fever clearly demonstrates the dual character of the vast majority of instances of this infection; that it most commonly is a compound fever.

The primary fever, due to the action of the typhotoxin, is not supposed in any case to last longer than fourteen days. The fever that persists for a longer period is a secondary fever due to septic conditions resulting from tissue necrosis in some part of the body, most commonly the ulcerative lesions within the intestinal mucosa.

A weighty argument in favor of this view of the character of the change in the nature of the febrile process at this time,—in the waning of the direct influence of the typhotoxin and the ascendancy of the septic sway in the clinical picture,—we find in the change in the

temperature curve at the end of the second week from the high point steadily maintained during the second week to the more labile, septic trend that we so commonly now encounter.

But cases are met with that are unquestionably genuine typhoid infections and yet they defervesce more or less abruptly in about two weeks' time.

Fifteen years ago I took three members of one family to the Reading Homœopathic Hospital ill with what I regarded as a genuine typhoid infection; they were my private cases, a mother, and two daughters, aged 12 and 15 years.

They developed the disease simultaneously and so far as the height and curve of the temperature were concerned they were equally sick, but it was plainly evident that the mother and fifteen-year-old daughter were more gravely ill than the younger daughter. At the end of two weeks all the cases terminated—the mother's case in death from intestinal hæmorrhage, the older daughter's case in death from peritonitis, probably from perforation, while the younger daughter had the good fortune to have her fever disappear by crisis and make an uninterrupted recovery.

This ideal termination was made possible through the resolution of the intestinal glandular inflammation without any tissue necrosis, due, doubtless, to individual constitutional peculiarity.

Small-pox is another infection consisting of a compound fever, but the primary and secondary fevers are separated naturally by a period of apyrexia. The primary fever is the result of the specific toxæmia due to the activity of the unknown variolous virus, while the secondary fever is unquestionably septic. Varioloid presents the primary fever only because there is not sufficient sepsis to call the secondary fever into being, resembling, in this respect, the lighter cases of typhoid infection.

Scarlatina, when associated with sequels such as sloughing of the pharyngeal tissues, otitis, nephritis, arthritis, is a compound fever the result of a dual infection. When not associated the primary fever due to the scarlatinal toxin ceases in one week and then convalescence is established.

When scarlatina is a compound fever there is usually no hiatus or gap between the primary and secondary fevers, the septic fever simply replacing the scarlatinal fever. It is important to bear this

replacement in mind and get away from the thought that, after the first week in scarlatina and after the second week in typhoid, we are still combatting the original infections, while, in reality, we are contending with the results of their pernicious activities.

This résumé of the pathology of the typhoid infection temperature curve will serve as a prelude and introduction to our subject.

These observations and conclusions were made and determined long before the bacillus of Eberth was demonstrated to be the morbific agent of the typhoid infection. It will be recalled that in explanation of resolution occurring without tissue necrosis in the intestinal lesions of typhoid infection we said that this was, no doubt, due to "individual constitutional peculiarity."

Following the discovery of the specific microbe variations in the severity of typhoid infections were attributed to an additional factor, namely, the varying activity of the germ.

We know that microbes grown in different media vary in virulence as the result of varying amounts of generated toxins in the same way that the percentage of morphia varies with the locality from which the Opium is obtained and from the same cause of this difference in alkaloidal strength—the pabulum afforded it and the environment.

Until recently these theories, or, rather, explanations, were accepted as the proper conception of the cause of the remarkable differences observed in typhoid infections. That these views do not wholly cover this subject will be clearly apparent from what follows and it will also be seen that the idea of *specificity*, so far as the typhoid disease is concerned must be abandoned and a much broader view taken of this infection just as we have been compelled to broaden our views of other infections, such as pneumonia, membranous sore throat, pleurisy, cerebro-spinal meningitis and pus collections, thus illustrating our meaning when we assert that, clinically, an affection may closely tally with a well known syndrome yet, bacteriologically, it may be quite another affection.

Subsequent to the discovery of the bacillus typhosus by Eberth in 1880, it was found that great difficulty existed in its separation from a group of bacilli very much resembling it in its morphology and which seems to have its normal habitat in the human colon—the colon bacillus.

These bacilli were first regarded as pure saprophytes—vegetable organisms living upon decaying organic matter; later the other extreme view of attributing too much to it was taken. Morphologically they cannot be differentiated and it was found that every known cultural characteristic of the typhoid bacillus is duplicated by some member of the colon bacillus group and it is only after a bacillus combines *all* the characteristics of the typhoid bacillus that the assumption can be safely made that it is *the* specific germ.

Perhaps the chief distinguishing characteristic of the colon bacilli is their generation of indol. The typhoid bacilli do not, at any time or under any circumstances or known conditions produce indol. This test was proposed by the Japanese Kitasato for the purpose of discriminating between them.

The quantity of indol in the intestinal canal, by the way, is now taken to be the gauge of the amount of intestinal putrefaction, thus indicating the activity of the colon bacilli and is measured by the test for indicanuria.

The subject of indicanuria is assuming much prominence in the diagnosis of obscure affections. Simon, the physiological chemist, says the examination of the urine for indican is, at least, as important as those for albumin and sugar.

The transitional stages in the conversion of indol into indican are as follows: Indol is formed during the process of intestinal putrefaction—in the blood this is oxidized into indoxyl—in the urine indoxyl sulphate is formed and reaction occurring with potassium phosphate produces indoxyl potassium sulphate, which is the indican sought for in the urine.

Another very important cultural differential test in distinguishing the colon bacilli from the typhoid germ is the effect of their action on glucose.

The typhoid bacilli do not ferment glucose and no evolution of gas occurs from its growth in solutions of any of the sugars.

Conversely, the colon bacilli vary in their action on some of the sugars; some ferment cane sugar, others do not, *but all of the colon bacill ferment glucose;* they must, of course, have nitrogenous substances that can be utilized as food.

These cultural differences should be remembered, as they are of importance in establishing the distinctive entity and individuality of

the paratyphoid germ. It has been particularly difficult for bacteriologists to demonstrate the exact dependence of typhoid fever upon the activity of the bacillus of Eberth, because of the natural limitations of experimental investigations in both the lower animals and human beings. The invariable presence of this germ in the intestinal contents and lesions, in some of the viscera, spleen, blood, the roseolous eruption and the urine and the absence of this bacillus in the healthy are supposed to scientifically demonstrate the dependence of the great majority of cases designed as typhoid fever upon this particular microbe.

The further studies of the morphology and cultural peculiarities of the specific typhoid germ were given a new trend, when, in 1894. Pfeiffer showed that cholera spirilla, when mixed with the serum of an immunized animal, lost their motion and were broken up. Pfeiffer's phenomena of agglutination and immobilization were thoroughly studied and the specificity of the reaction demonstrated not only in reference to the cholera spirilla, but also with all the other germs investigated. Widal took up this method and studied it in its relations to the diagnosis of typhoid fever and thus made it available in clinical work.

As the result of microbal activity on the bodily tissues the blood develops soluble substances known technically as agglutinins. "When these are sufficiently concentrated they have the peculiar property of clumping and rendering non-motile the specific organism whose activity gave rise to their production" (T. McCrae).

It has been established that this reaction occurs with any of the infecting germs. We do not wish to weary you with the details and minutiæ of the Widal reaction, but we do wish to emphasize, as substantiated by the best authority, the diagnostic value of positive results, taking the precaution to exclude a prior attack of typhoid infection and using properly diluted serum. In large series of cases positive results were obtained in over 99 per cent. in the Johns Hopkins Hospital.

Too much importance must not be attached to negative results, because in some cases the reaction can not normally be obtained before convalescence is established. This diminished value of negative results will be referred to again.

For more than twelve years it has been known that cases closely

parallelling the clinical picture of typhoid infection occur from the blood of which cases bacilli were obtained that, in their cultural behavior, were intermediate in type between the colon and typhoid bacilli. In one case of this character studied in the Johns Hopkins Hospital, there were pyrexia, enlarged spleen, roseolous abdominal eruption, delirium, the diazo reaction and intestinal hæmorrhage. By culture, from blood inoculations, a bacillus was obtained that fermented glucose solutions being, in this respect, like the colon bacillus and unlike the typhoid bacillus; but no indol was developed in the culture media, in this respect showing a marked similarity to the typhoid germ and a striking contrast to the colon bacillus, which it so much resembles in its ability to ferment glucose.

From these premises it is very apparent that a distinct entity quite apart from the bacillus of Eberth was the material morbi in this particular illness.

Another argument in favor of the disjoined specific character of this germ is that no Widal reaction with typhoid culture can be obtained, no agglutination in dilutions as low as 1-40. There can be no doubt that some of the cases of supposed typhoid fever that give no Widal reaction are cases of paratyphoid infection in which, of course, no such response could be expected.

The term paratyphoid bacilli has been adopted for these germs.

The pathology of paratyphoid infection is based on the bacteriological peculiarities just noticed and on post-mortem findings in a few fatal cases.

The interest in the post-mortem findings naturally centers in the condition of the intestinal canal. In none of the cases examined was there any involvement of the lymphoid element of the intestines, either of the agminated glands (Peyer's patches) or of the solitary follicles. As a rule, the mucosa in both the small and large intestines was practically normal except for some slight catarrh and superficial hæmorrhages. In one case a few erosions were found just above the ilio-cæcal valve. In a few cases of actual ulceration all observers agree in likening the appearance of the lesions to dysenteric necrosis.

The fact that intestinal hæmorrhages have occurred in several cases shows that intestinal lesions may occur, but it can be taken as settled that there is no tendency to localization of these lesions in

the solitary glands and Peyer's patches. It is quite probable, nay, more than probable, that the reported cases of typhoid fever without intestinal lesions were really cases of paratyphoid infection.

In the autopsical cases the paratyphoid bacilli were secured from the blood of the heart, spleen, liver, and lungs.

The clinical recognition of paratyphoid fever is an impossibility: it cannot be more than surmised or suspected because its syndrome or symptoms do not constitute a clinical entity any more than do those of genuine typhoid infection for there is no greater diversity between the symptoms of typhoid and paratyphoid infections than there is among those of the different types of typhoid fever.

By the symptoms alone it will be impossible to separate them, because many cases of paratyphoid may present all the symptoms of classical typhoid.

Some of the clinical features of paratyphoid infections have been determined. As a rule, it is a milder diesase with a better prognosis and seems to be more commonly attended by diarrhœa and *shows a greater tendency to terminate by crisis*. However, too much importance must not be attached to the clinical type in a given case; there have been severe, as well as mild, cases; the deaths among the cases so far reported have amounted to 90 per cent.

The infecting organism must have a wide distribution because cases have been reported from all over the world.

According to Conradi the fever curve of paratyphoid is characterized by a fairly sudden rise and more irregular course of temperature than is regarded as typical of genuine typhoid fever. Epistaxis is also commonly met with.

So far as duration is concerned there is marked resemblance to typhoid fever; this has been found to vary from 12 to 84 days, the majority of cases running from 20 to 36 days. First and second relapses have also been encountered.

It further parallels the typhoid picture in that there is no leucocytosis in uncomplicated cases. The list of possible sequels is just as long and formidable. As before remarked, cases of typhoid and paratyphoid cannot be separated by the symptoms alone. According to Dr. Park "the only reliable criteria for diagnosis are the absence of the Widal reaction in proper dilution (not less than 1-40), with a positive reaction against a known paratyphoid bacillus or the

recovery of a paratyphoid bacillus from the blood, urine, or complicating inflammatory process." The low negative value of the Widal reaction, because of its occasional belated appearance, until after convalescence is established, renders it of little value in this connection.

Bacteriologists have distinguished between two related bacilli that are called paratyphoid bacilli; these have minor cultural differences that enable them to be differentiated. Not wishing to complicate the subject I refrain from enlarging upon this feature of this infection.

The lesson to be learned from the facts described is that the set of symptoms that have been regarded as indicating the temporary disturbance of the body by the pestiferous activity of one kind of bacillus—the bacillus of Eberth, must now be regarded generally, as constituting a genus instead of a species.

These symptoms do not indicate the typhoid infection any more than the symptoms of cerebro-spinal meningitis indicate invariably the activity of the diplococcus intracellularis meningitidis as the infecting agent.

We all know that the classical symptoms of cerebro-spinal inflammation may be produced as well by the pneumococcus, the streptococcus pyogenes, the staphylococcus pyogenes, the colon bacillus, the typhoid bacillus, the bacilli of bubonic plague and glanders and the tubercle bacillus.

Pus collections may be due to various pyogenic cocci and membranous sore throat may be streptococcal or bacillary.

Pneumonia is most frequently caused by the diplococcus of Fraenkel, it being almost always present in primary lobar pneumonia and as frequently as any other germ in acute broncho-pneumonia. Besides the pneumococci the following bacteria are capable of exciting pneumonia, streptococcus pyogenes, the staphylococcus pyogenes, the bacillus pneumoniæ of Friedlander, the bacillus of influenza, of plague, of diphtheria, the typhoid bacillus, the colon and tubercle bacillus.

These facts indicate the great and growing complexity of clinical medicine and the wisdom shown in arriving at conclusions cautiously, as well as the absurdity of "snap diagnoses."

Another important bearing of this complexity in the causation of

the classical clinical pictures that we meet is the too apparent futility in searching for a specific treatment that will suit a syndrome that may have any one of a half dozen different causative factors.

METHODS OF LIVING WHICH RESULT IN PATHOLOGICAL CONDITIONS.

R. E. TOMLIN, M. D., PHILADELPHIA.

"Now in building of chaises, I tell you what,
There is always somewhere a weak spot,—
In hub, tire, felloe, in spring or thill,
In panel or cross-bar, or floor or sill,
In screw, bolt, thorough-brace—lurking still,
Find it somewhere you must and you will
Above or below, or within or without,
And that's the reason, beyond a doubt,
A chaise breaks down, but doesn't wear out."

* * * * * *

The poet further declares that a chaise will not endure any more in an emergency than its weakest spot is able to stand:

"Fur," said the Deacon, "It's mighty plain that the weakest place must stand the strain."

—"One Hoss Shay," O. W. H.

Ling says: Anatomy, that sacred genesis, which shows us the masterpiece of the Creator, and which teaches us how little and how great man is, ought to form the constant study of mankind. But we ought not to consider the organs of the body as the lifeless forms of a mechanical mass, but as the living, active instruments of the soul.

Taylor opines: It should be understood that the efforts of the physician must be seconded by the patient, and that this concurrence must not be faint and faltering, but *determined* and *earnest*.

If his energies, or what remains of them, can thus be enlisted in his own behalf, the victory is already half gained.

Walters says (Exact Science of Health): Food, an external agency, is a necessity to living existence.

1. It constitutes the materials of organization. Life exists before and is the *cause* of organization, but food is a necessary *condition.*

2. Food being digested and assimilated, supplies physical forces to the organism.

Life is an intelligent force, the superior of all forces, and proves its intelligence by appropriating to its use mechanical and chemical principles and forces. These are the servants of the life-forces; and never their equals.

3. Food, being material of organization, requiring by its very presence within the vital domain to be cared for, digested, and assimilated, necessarily calls up the vital forces to control, if not do, this work, and, consequently, instead of communicating the power of life to an organism it takes away a modicum of power in the act of doing the work. The use of food is the means of inciting the organism to continued activity. Food, therefore, takes its place among all the other environing influences of life. It is an occasion of vital activity and never a cause; it is a condition of animal life, never a force or power of ife. "Give me food fit to eat," so that "good digestion shall wait on appetite, and health on both," then, "enough will be a feast."

C. Stelzle remarks on individuality and the individual: You may determine the distance of a star by multiplying the number of seconds that it requires for a ray of light to travel to the earth. You may know exactly what will result when certain chemical substances are brought together. But you can never tell what a man will do, precisely under circumstances which have been familiar to the world since the beginning of time. The element of human nature will not permit itself to be classified and catalogued. It resents every attempt to force it into the laboratory for the purpose of analysis. It objects strenuously to being placed upon the operating table, or the cadaver, for the purpose of dissection, either ante-mortem, or post-mortem. There are degrees of human nature so fine that they cannot be measured by the most exact "micrometer" that was ever invented. To the man who would cram it into a mould it manifests its indignation by breaking the barrier that confines it. You cannot deal with men as the entomologist deals with his millions of bugs. They refuse to be "grouped," and prove it by annihilating the carefully made deduction of the learnd sociologists.

From the many special, as well as other books, magazine articles, notices in public journals, and the daily papers upon the subject of "dietetics," it would seem that it has reached such a degree of development and scientific precision, that neither a physician nor a layman could err in what he ate or drank, or when he chose to do so; and, further, from the number and duly qualified organizations with their inspectors of foods and drinks, that all of such that were procurable, and at one's disposal, would, of necessity, be fit to eat and drink. It is a well known fact that almost every article that is used for food or drink has been, or is now, adulterated. That what is one man's food or drink, is poison to another, is an old and proven adage. Why the matter of "relish" is such an important factor in the life of some and so little in others I leave for your contemplation, although the answer is not far to seek. That seeming immunity seems to be granted to some in the indiscretions so often committed at the table, while the penalty is so great in others for apparently less imprudence in the selection of food, and times for ingesting, are no small problems.

That some of the most acute and fatal of all forms of illness follow so soon after eating and drinking are no new facts to you, either as physicians or men, for it is a notorious fact, that the average doctor is hardly more careful than the ordinary layman, or more free from the ravages and fatalities that follow in the wake of acute indigestion; indeed, in some of the higher classes of society this has been termed "Americanitis," from its frequency in rendering "hors du combat" so many of the "dignified set."

Has the well known signal of "Stop! Look! Listen!" lost its significance? Must appendicitis, acute Bright's, etc., follow almost immediately upon acute indigestion, as one or the other so often does, and many other diseases with more or less alarming rapidity and fatality, before other members of the family or friends are stricken by the "grim destroyer," and then attribute the departure to the grave of the loved one by the appalling statement that it was the "will of Providence?"

Will any man here be bold enough to state the sad and sudden death of a well-known railroad official of our State was an act of "The Almighty," after reviewing the history of that man's life for the few hours preceding his death? Visiting some relatives, he

dined with them, and ate very heartily of all the different courses, then lighted a cigar and started for his home, quite a distance away, up hill, and he unaccustomed to such a walk. It was a very cold afternoon (last winter) and he walked rather rapidly, so much so that when he arrived at his home he was perspiring freely and puffing like a porpoise; he entered the warm house, sat down a few moments, became dizzy, reeled, and fell over dead. He was home in about an hour after his heavy dinner, with the unusual fatigue, and although in young, middle life, paid the penalty of indiscretion at the table, although the doctor said it was heart failure, from acute indigestion, and the minister said it was God's will.

The eminent lecturer, Elmendorf, stated in "The American Academy of Music" last winter that none of the fine grades of coffee that grow in Mexico, and northern South America, reach the United States, although they are advertised as such in every large American city. It is a known fact that more than one hundred and twenty-five different chemical substances are used for adulterants in the manufacture or brewing of beer; many are used in whiskies, brandies, wines, etc., etc., etc.

What physician has not had cases of stomach and bowel disorder to treat this summer, following the drinking of soda waters, etc., etc., etc.

Appendicitis is acknowledged to be a disease of the present generation, and a pathological condition, due to food adulteration largely, which often starts as a simple gastric, or gastro-enteric catarrh. Prof. H. L. Northrop stated in an address before the Clinico-Pathological Society at Hahnemann College last winter that appendicitis was increasing.

That a man is physically the sum total of what he eats and drinks and breathes is not questioned. The carbon dioxide, and other noxious gases, and putrefactive matters, that form in the stomach and bowels, sometimes slowly and insidiously, at others rapidly and dangerously, cannot be doubted by anyone giving thought to these things in their disease and death dealing capacity.

How the "57" varieties disappear so quickly and easily, and without combatting or destroying each other, or their host, while plain toast and cambric tea make life one long, dreary day, is a problem for the psychologist rather than the pathologist.

To-day acute indigestion stalks unhampered over the land, so that there are fifty cases of this disorder going to the grave for one even from appendicitis, due to similar conditions.

This is due to the practice of long keeping foods, either animal or vegetable, in cans, or otherwise. Nothing spoils so quickly as the products of the sea.

Ptomaine poisoning follows their ingestion, and this leads to the malady known as acute indigestion.

Aside from those who specially devote their time to pathology and bacteriology, who are here that can definitely and concretely state what this common and often fatal disorder is?

You are all familiar with rheumatism, that painful and distracting ailment that afflicts, probably, ninety per cent. of the race during some period of their life, and which leaves serious pathological lesions in the noble organs. There are numerous theories, but one great underlying cause.

Take la grippe, a combination of "weakened membranes" and a "depleted nervous system." Although this is an epidemic disease, having the most serious pathological conditions in its category, still it does not affect persons who are what we call "well," and one serious attack often leaves the most serious lesions in its train. There is no need to further particularize at this time.

A distinguished authority make the following statement of facts:

1. There never was a time in the history of the world when there were food adulterations of so grave a nature, and in such abundance as to-day.

2. There never was a time when so much baking powder was used.

3. There never was a time when so much meat was eaten.

4. There never was a time when so many entrails and viscera of animals were eaten.

The consumption of food so largely and generally adulterated leads at once to a gradual undermining of the whole body until suddenly some serious ailment, whether la grippe, pneumonia, typhoid fever, apoplexy or what not is ushered in, and then the true pathology is discovered.

As soon as a few extra cases of typhoid fever are reported, how quickly does the Board of Health "get busy," and the newspapers herald the fact broadcast. How often, or where do you find remonstrances against the average "menu?"

How many banquets served for physicians, but what contain courses and specials that are chemical incompatibles, and the resulting combinations being inside, are not seen, but felt too often, to the anguish of the "poor, unfortunate victim" (sic.).

It does not require the services of an expert pathologist to discover in many, if not most, of the ailments that afflict the present generation the real factor at work.

In conclusion, permit me to quote the words of one of the most brilliant writers of the day:

"To those who love life, to those who appreciate the blessings of health, to those who want to believe that this world is a good place in which to live, to those who love little children, to those who strew the pathway of age with the flowers of sweetest affection, to those who hallow the memories of home, and the richest treasures of earth, and to all who have a mellow heart in place of a sordid mind, take time to ponder upon what thou are about to eat and drink while time and sense are thine."

DISCUSSION.

Dr. A. P. Bowie: There is more truth than poetry in what has been said. I think that one of the best agents that a doctor can call into play in the treatment of intestinal and stomach troubles is to enjoin on the patient the necessity of fasting. I believe that I have cured many cases in just this way. The tendency to overeat is overcome better by fasting than by any other process. Hot water drinking and an exclusion of solid food will do more than all the physics and calomel and other things that are resorted to. It is the duty of every doctor to prevent disease and this is the way to prevent it by fasting.

Dr. E. S. Snyder: In the treatment of cases of acute or chronic indigestion I believe in restriction of diet, as has been suggested, but, in addition, I urge the patient to drink large quantities of water. After all, it must be the duty of the physician to build up the powers of resistance of the patient by urging him to drink large quantities of water. This has a healthy influence on all of the excretory organs. I do not hesitate to tell him to drink one or two gallons of water in twenty-four hours. I just want to add that rest of the digestive organs is as important as rest of all the other organs.

Dr. H. W. Champlin: In patients with weak hearts it would be unwise to tell them to drink the large quantities of water that have been suggested by Dr. Snyder.

Dr. B. F. Betts: One should be very careful in giving this amount of water to a patient with a weak heart.

THE LAW OF IMMUNITY AND HOMŒOPATHY.

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Some months ago, at a meeting of the Boston Homœopathic Medical Society, Dr. Richard Cabot, of the Harvard Medical School, gave an address upon the similarities and divergences of the two leading schools of medicine. During the course of this address, he said, "It has been perfectly just to charge our school in the past with the absence of any principle or law in therapeutics and to contrast the order and system of homœopathic treatment with the helter-skelter omnium gatherum of merely empirical methods. But the contrast is no longer just. Homœopathy has a well-defined law, which has been established (like all laws). empirically, and is constantly and properly being subjected to re-verification through careful experiments. We also have, at last, after much groping and long years of work, obtained a law of therapeutics, a principle of therapeutic effort, namely, the principle of immunity, natural and acquired and of the means by which it may be attained, augmented, protected."

With this statement of Dr. Cabot I am in hearty accord, as it expresses the aim or goal of the entire medical profession. It is for the purpose of considering the above expression of belief that I appear before you at the present time, as, on account of its origin, coming, as it does, from one of the most prominent of the dominant school, it may be safely considered to be authoritative. And it will be my endeavor to show that in many respects, if not in all, the law of similars coincides with the law of immunity.

Included by the terms immunity and immunization is a very large proportion of the advances in therapeutics made during the last decade. In order, therefore, to obtain a more definite idea of the subject some consideration of these terms is essential. Immunity may

be briefly defined as that power possessed by an organism whereby it is enabled to resist disease. To the production of that power is given the name immunization. Immunity can never be positively stated to be absolute, as conditions may arise or be produced that will render susceptible individuals who are ordinarily immune. Immunity is either natural, some power inherent to the organism during its entire life by virtue of its being what it is; or it is acquired, a quality achieved by some external environment and contamination. Natural immunity being uninfluenced and uncontrolled by externals is, therefore, of comparatively minor interest to the medical profession. The varieties of acquired immunity are two, accidental and experimental.

Accidental immunity, such as is observed following measles, chicken pox, whooping cough, mumps, etc., is, as the name indicates, usually a result of accident, and as such is but little subject to control or regulation. Therefore, as with natural immunity, its importance is not great.

Experimental immunity, on the contrary, is of the greatest importance and is holding the attention of the medical world to-day as no other one subject does and, probably, more than all others do. Here are being made discoveries after discoveries in rapid succession in a field recognized by all to be only merely entered. Here, too, will be successfully sought that long evasive explanation of why certain methods of treatment are beneficial and why others are not. And, finally, here also will be found the equally elusive material demonstration of the truth and efficiency of the law of similars.

Experimental immunity is produced purposely in one of two ways. With one, active immunity, the body is active in producing those anti-bodies that neutralize and render inert the noxious products of disease. With the other, passive immunity, the body merely acts as a vehicle to receive from some other source these neutralizing agents, that other source being usually the blood of some other animal.

The best illustrations of active immunity are vaccination and opsonic therapy; of passive immunity, anti-toxin for diphtheria and for tetanus.

Interesting as the subject might be, the present is no time to enter into discussion of the value or dangers of vaccination and anti-toxin. That which I do wish to consider more in detail is the class interrelation between the treatment of diseases by active immunization

opsonic therapy, and the treatment by homœopathic medication. I advance, as a fact, that will be accepted by all that the only essential difference between the two schools of medicine at the present day is their methods of using drugs. In everything else we are in unison. Both schools make use of surgery, of antiseptics, of hygienic and dietetic measures, of massage, of electricity, of vaccination, of antitoxin, and of various adjuvants; in fact, of everything medical other than drugs. Let us grant, then (as we willingly do), that *their* one aim is the production of experimental immunity. We, too, by using identical measures are also striving to make our patients immune. We are up in this point on, at least, equal footing with them. So far as I am aware, no claim has ever been made by the dominant school that their drugs, empirically administered, have any direct influence upon the production of immunity. In fact, the reverse is true, for have not many of the leaders in the profession practically abandoned the use of drugs, claiming better results without them than with them? It seems safe to assume, in view of the above, that drugs empirically used not only do not often raise, but frequently actually lower the degree of resistance. This method of treatment, then, will be eventually abandoned, except in a certain few apparently specific diseases. And here lies the opportunity of Homœopathy. If we can come forward and say "here is a different method of applying drugs based upon an orderly and logical foundation, that is capable of demonstrably increasing the degree of resistance to disease." what honest man can gainsay us?

In order to do this, however, we must possess actual proofs of our statements in form that can be unquestioned. The personal element must be eliminated and material facts be adduced. Even clinical experience, liable as it is to be biased by individual opinions and prejudice, cannot fully convince. In this very scientific age, laboratory studies usually obtain widest credence. And so to the laboratories let us go for our facts, if they are here obtainable.

Thanks to Sir A. E. Wright, a method of laboratory study has now been perfected that will enable us to test the truth or fallacy of a number of our homœopathic claims.

By the study of the opsonic index of different individuals we are now enabled to follow with exactness, variations in the degree of immunity so minute as to have been heretofore entirely undreamed

of. So much has been written concerning this subject that detailed description would be not only unnecessary, but unwise, as well. Let us, therefore, merely glance over that which occurs subsequent to a vaccine treatment in a person whose index is, let us say, .7. Within a few hours the index and, therefore, the degree of immunity will be found to have fallen to, perhaps, .5. After a day it will have risen to its former elevation, and then for several following days will continue to rise to 1, 1.2 or higher. Here it will stay for a variable length of time, gradually falling to normal if no further treatments are given.

Much of the success of the immunization depends on the size of the dose used, there being a limit of variation beyond which it is unwise to go. If the dose is too large the fall in the index will be unduly pronounced and will be followed by little or no rise. In other words, an aggravation will ensue. If the dose is too small very little rise in the index will be noted and little or no clinical improvement. The aim is to give that amount of vaccine that will produce the least fall with the greatest rise of the index possible. Or, in a more familiar phrase, the dose should be the smallest possible to produce the desired effect. The average size of these doses approximate the 5th to the 8th decimal potencies of the homœopathic profession, varying, of course, with the particular variety of bacterium. They are given at varying intervals of once in from two to twenty days.

We have now seen that it is possible with all scientific accuracy to watch the effect of various forms of inoculations upon the opsonic indices to the organisms inoculated. What is more natural for the homœopath than to similarly test the influence upon the opsonic indices, of drugs reputed to possess unusual value in certain infections. This can be tried in one of two ways: Upon the healthy and upon those suffering from the activity of some bacterium. By a curious coincidence during the spring and summer of 1907, both of these methods were being independently employed by investigators far separated and each in ignorance of the work of the other. While Dr. Wheeler, in London, was experimenting with the effect of Phosphorus upon the tuberculo-opsonic index, the speaker was following the index to colon bacillus of a patient suffering from alimentary disturbance and who was being treated homœopathically. The coincidence, if it may now be so called, does not stop here, as in addi-

tion to the similar experiments the conclusions were identical; *i. e.*, that, in certain instances, at least, the proper use of the homœopathic remedy may and does increase the degree of immunity. Since this time other studies by Dr. E. A. Neatby, of London; Claude Burrett, of Ann Arbor, and the author, tend to still further strengthen this idea. A brief resume of the results of these investigators may be of interest. Dr. Wheeler, who has charge of the Research Laboratory of the British Homœopathic Society, worked in association with Dr. Wright and Capt. Douglas in the determination of his tuberculo-opsonic index, as influenced by the internal use of phosphorus. Dr. Wheeler found, after a number of determinations, that his index was always low, ranging from .6 to .8. On account of these low indices Wright advocated the use of tuberculin as a prophylactic measure. Wheeler, however, studying himself carefully, decided that the indicated remedy for him was Phosphorus. Several determinations of the indices averaging .6, he began the use of Phosphorus 3x, taking one of two doses each day. After a week the index was found to be .88, and after seventeen days it was exactly 1. The use of the drug was then stopped for four weeks, at the end of which time the index had fallen to .36. Occasional doses of Phosphorus during the following month brought it once more to .99. The figures were all recorded by Dr. Wright without any knowledge of what the patient was taking or when it was being taken. Sometime subsequent to this experiment the index was found to be .75. One dose of Phosphorus 3x per diem carried the index in four days to 1.4; in eight days to 1.5. Phosphorus then being suspended the index three days after fell to .1. He made a number of other experiments similar to these, the most interesting of which was one showing the effect of a single dose of Phosphorus 3x. Following two determinations of the index, which were, respectively, .98 and .97, he took one dose of Phosphorus 3x. Two hours later the index was .97, the next day 1.7; the following day 1.1 and the 3d day .8. By this means he demonstrated the decided, but temporary action of a single dose of this medicine. Work was also performed to demonstrate, if possible, the effect of higher dilutions. This resulted in a very slight fall in the index, followed by a very slight rise. In the interpretation of these results Wheeler is safely conservative. He states: "There seems to me good reasons to believe that in my case the ad-

ministration of Phosphorus does affect the tuberculo-opsonic index. It would be a far cry from this statement to announce that the drug always affects the index of everyone in this way."

Dr. E. A. Neatby, also of the London Homœopathic Hospital, has recorded some of his investigations. His tuberculo-opsonic index after a number of determinations averaging .9, he took, as a drug one-twentieth of a grain of Phosphorus at ten in the morning. At two that afternoon the index was .76. At ten o'clock the next morning it was 1.25 and on the following morning 1.59. Here was demonstrated the typical negative phase or aggravation followed by the much more decided positive phase or stage of amelioration. In order to test the specificity of the drug to tuberculosis he at the same time took his opsonic index to staphylococcus, the result being that practically no variation was noted.

Dr. Claude Burrett, of Ann Arbor, has written upon the action of echinacea upon the staphylococcus index, where he has been able to demonstrate a decided benefit to the prover following the use of Echinacea, as indicated by the rise in the index.

We have in the laboratories of the Boston University performed a number of experiments along this and similar lines, all of which thus far have justified our conclusions to correspond with the results above mentioned. Differing slightly from the object in view in connection with the testing of Phosphorus and Echinacea, we determined to investigate the action of Hepar in material doses in its much vaunted value as a promoter of suppuration. The indices of the provers were taken repeatedly under identical conditions, by which it was demonstrated that all were practically constant. The index to staphylococcus of one person was 1.2. Following this determination one dose of Hepar 1x was given. Twenty-four hours later the index fell to 1, on the second day rising again, when it reached 1.1. At the end of a week it was still 1.1. A second person whose index was .96 took four doses of Hepar 6x at half-hour intervals. The following day the index was .64, the next day .77. On account of unforeseen occurrence the indexes of this individual for subsequent days could not be determined. If any conclusion may be drawn from this very fragmentary test it would be that in these two particular instances, at least, Hepar in single strong doses and in a number of comparatively small ones, is capable of materially

decreasing the resistance to staphylococcus infection. It seems possible to exclude any personal equation in these determinations, as each examination was made in duplicate by the same person under identical circumstances and in entire ignorance at any time of what slide was being examined. In all, a total of fifty thousand bacteria were counted, and not until the series was complete were the results brought together for comparison. When they were thus united, however, it was found that both sets of slides were practically identical. Other series are now being made, and it had been the hope of the speaker to present them at this meeting. On account, however, of circumstances beyond his control they are not at present available.

One further study and one, perhaps, more instructive than the preceding, may be cited. It is directed from a somewhat different quarter toward the same goal. A patient, Miss S——, came to the Massachusetts Homœopathic Hospital early in May, suffering from a chronic diarrhœa of some years' standing, due to no demonstrable cause. Tuberculosis and tumor were apparently positively eliminated. Her index to tuberculosis and to staphylococcus was 1.02 and .98, respectively. Her index to colon bacillus was .45. It seemed possible, therefore, that if her colon index could be brought to normal she might receive benefit therefrom. On account of her history of having shown marked improvement formerly from the use of sodium sulphate in homœopathic preparation, and as this seemed to be the perfectly homœopathic remedy for her case, we decided to try this and to watch the variation, if any, in the index. She was under observation in the hospital for nearly a month, without treatment, but with all other conditions identical to those present subsequent to the beginning of the treatment. During this time no improvement was noted. Upon June 16th she was given hypodermatically, sodium sulphate 200x and upon the 22d this dose was repeated. June 26th index was found to have risen from .45 to .7. June 28th it was .88. On this day a third dose of the same medicine was given. Upon July 1st the index was .96 and upon July 4th 1.6. At this time one dose of sodium sulphate 30x was given in water and so repeated at intervals of a few days thereafter. The index upon July 12th was 1.3, July 24th, .6; July 29th, .9. Here again one cannot draw conclusions from a single case, but in this particular instance it would seem that the drug given in the strength

indicated hypodermatically exerted a more potent effect upon the index than when it was given in another strength by mouth. During the entire time there was a steady improvement in the clinical symptoms until the patient went home early in August with practically normal intestinal functions. and feeling in excellent general health.

Such studies as these above cited indicate merely the outline of the road along which much work should be done, and we trust, will be done. Here, if ever, seems to lie the opportunity of the homœopathic school to demonstrate to skeptics in a manner beyond question the efficiency of the homœopathic remedy in increasing the resistance of the patients and in accordingly putting them in a much better position to overcome the effects of disease. If we can thus demonstrate in a material manner that in infectious diseases drugs thus employed do favorably influence the resistance of the patient as indicated by the opsonic index, we can, with much more assurance claim that in other abnormal conditions than those due to parasites, drugs exert a similar beneficent action. It then remains for the future to discover some new refinement of technique that will enable us to extend our material proof into this realm, as it is already being extended into that of the infectious lesions. The entire field of opsonic therapy that is now being so favorably worked by many physicians of all schools is admitted to be distinctly homœopathic. This is particularly well demonstrated by the use of tuberculin and whether we agree with this idea or whether we prefer to consider it isopathic, we certainly will all unite in admitting that it is very closely allied to Homœopathy in all respects.

By demonstrating, therefore, as these early investigations promise to do, that the homœopathic drug does act as an agent to increase the degree of immunity, are we not and have we not for years been striving for the same goal that our confreres of the dominant school now admit to be theirs? With them we use many other adjuvants recognized to increase the immunity, but in addition to these we have the advantage over them of a therapeutic principle applicable to drugs that they do not possess. This principle enables us to successfully treat cases and conditions. perhaps, often having no discoverable cause that are, from their standpoint, not amenable to medication. In other words, we possess all that is possessed by the older school and in addition use an implement the value of which

they are now beginning to recognize and which will, I believe, in future, be held and wielded by all in our common fight against the grim reaper.

DISCUSSION.

Dr. F. F. Massey: In view of the fact of the difficulty in bringing the scientific side of Homœopathy before the public, would it not be a wise thing to endeavor to have papers, such as the one read, or special papers arranged as lectures in the lecture course of the Society for Extension of University Teaching. This is a suggestion for you all, and, if nobody else will make such a motion at the proper time, I will do so, hoping to have the support of all.

Dr. N. S. Betts: This line of work opens up a field for the application of the homœopathic law that is very interesting.

Dr. E. L. Nesbit: The value of such a paper at a time when the dominant school of medicine is beginning to accept the substance of the homœoptahic contention, in fact. if not in name, is inestimable. It must effect not only those of our opponents who are now arriving by methods of clinical research at the conclusions predicted by Hahnemann and the early homœopathists without the use of these latter day advantages, but also with convincing force to those more recent graduates who are too readily inclined to abandon homœopathic principles in their zeal for "rational" modernism. If we propose to hold these younger men we must make our appeal to them based upon our experience checked up by modern methods of precision and not upon mere reiteration and reaffirmation of old provings.

Dr. H. W. Champlin: We have an excellent journal in Boston and this paper should be printed in it. The journals should make use of these papers and this paper in particular should be spread broadcast, not only to our own physicians, but to all others.

Dr. W. A. Dewey: One of the functions that we hope to take up in the near future is the publication of such papers as this. This class of literature will appeal to students of allopathic colleges and graduates of the same. I think this a work that will come under the jurisdiction of the Council of Medical Education of the American Institute of Homœopathy.

REPORT OF THE

SECTION OF SURGERY.

Renal Hæmaturia—Report of Cases, by L. T. Ashcraft, M. D.
X-ray Studies in Gastro-Enteroptosis, by J. W. Frank, M. D.
Don's in Anæsthesia, by Arthur Hartley, M. D.
The Prevention of Sepsis From Infected Flesh Wounds, by J. M. Maurer, M. D.
Instructive Cases From the Wards of Hahnemann Hospital, Philadelphia, by H. L. Northrop, M. D.

RENAL HEMATURIA—REPORT OF CASES.

L. T. ASHCRAFT, A. M., M. D., PHILADELPHIA.

The presence of blood at the urinary meatus, or intermixed with the urine, is a condition which annoys not only the patient but the doctor as well, causing considerable thought concerning its cause and cure. Indeed, until a few years ago the source of blood in the urine was a matter of conjecture. It is true that certain rules were laid down, which were supposed to guide the diagnostician, but none of them were of any marked value and, since the advent of instruments of precision, have been relegated to the past. Now the exact source of bleeding may be determind by the urethroscope, cystoscope, and the urethral catheter. Indeed, no accurate opinion, either diagnostic or prognostic, can be given without the intelligent use of these instruments. While, sometimes, bleeding stops spontaneously, or by the action of certain remedies, yet the origin of the hæmorrhage and its scientific treatment must remain in doubt, unless cystoscopy is employed.

Unilateral renal hæmaturia arises oftenest from trauma, resulting from wounds, violence and fractures, stone, tuberculosis, malignancy and malpositions of the kidney.

Case 1.

Referred by Dr. Gumbrecht, 2/10/07.

G. S., laborer, fell from the deck of a vessel to its hold, injuring his back. Shortly afterwards he voided bloody urine constantly for

twenty days, during which time he was confined in a Philadelphia hospital. Without any local treatment or operative interference the bleeding stopped, and there was no recurrence for forty days, when, suddenly, apparently without cause, it recurred and continued for ten days uninterruptedly. The patient passed long, thin clots. When I saw him he was in a very weak and alarming condition. The local symptoms, pain and tenderness, were referrable to both kidneys, but especially to the right one. The kidneys were in their normal position. Cystoscopy showed the left ureteral orifice normal, and the right one swollen, congested, and spurting blood—gradually clouding the field. I catheterized the right ureter, irrigating the pelvis of the kidney with a saturated solution of Boric acid. This, together with Cantharis and Berberis succeeded within a few days in allaying the hæmorrhage. Eighteen months have elapsed, during which he has had two mild attacks of renal hæmaturia. Was the cure brought about by catheterization of the ureter and irrigation of the kidney pelvis?

Hagner Annals of Surgery, August, 1908, reports the successful cure of three cases of unilateral hæmaturia following catheterization of the ureter. I am inclined to believe where stones, tuberculosis, syphilis and malignancy can be excluded that this method is worthy of a trial before resorting to operative interference.

B. F. R., aged 27, Surgical Wards Mercy Hospital. 12/26/07.

Occupation, harness maker.

Past History.—Seven years ago had an attack of hæmaturia, which lasted two months and then disappeared.

This followed a rather active fistic encounter.

Present History.—Since August, 1906, he has been bleeding intermittently, this always following marked exertion. The urine is never entirely free from blood, which, at times, is bright red. The kidneys are normally placed, and, apparently, not enlarged. He complains of feeling tired all the time and has lost weight. There are no evidences of previous infection. Cystoscopy shows the bladder normal in every respect. The right ureteral orifice normal and spurting regularly, the left ureteral meatus acting sluggishly and emitting free blood with every systole. The left ureter was catheterized, also the right one. The urinary analysis showed that the urine from the right ureter was acid, S. G. 1020, containing a few

crystals of oxalate of lime and uric acid. The left showed specific gravity of 1028; albumin, crystals of oxalate of lime and uric acid, granular and hyaline casts were present. The urine was examined for tubercle bacilli with negative results. The patient was placed in bed and treated with Calcium chloride, Cantharis, Ergot and Hamamelis. The ureter was catheterized several times and the pelvis of the kidney washed out with a saturated solution of Boracic acid, to which were added a few drops of Adrenalin chloride. This treatment, however, was unsatisfactory. Accordingly, the kidney was exposed, its capsule split, a moderate size incision made into the substance of the organ and a drainage tube placed in. The ureter was washed through the drainage tube morning and evening for several days. Within a few days the bleding ceased. Three weeks after operation the patient left the hospital. I have examined him several times since and he had had no return of his bleeding.

Patient of Dr. Grumbrecht, 1/3/07.

Mrs. A. R.; age, twenty-seven; for the past two years had symptoms pointing to stone in the right kidney. She had attacks of severe characteristic pain on the right side, extending along the ureter, occurring several times monthly. The urine was cloudy and contained pus and blood. Cystoscopy showed the bladder normal in every particular, except slight congestion at the trigone. The right ureteral orifice was spherical and gaping. It was catheterized. No difficulty was encountered until the pelvis of the kidney was entered, when the catheter curled upon itself. Biedhoff's pelvic distention test for the detection of stone in the kidney was then made, with positive results.

The hæmaturia which results from the pelvic distention test, in the presence of calculus, is due to the dislodgment and movement of the calculus by the stream of fluid, and, as a result of this dislodgment, blood results from traumatism of the pelvic membrane. The urine showed blood, pus, uric acid, epithelium, and casts. An X-ray examination confirmed the diagnosis of stone. The left ureter was catheterized, and the urine examined and found normal. I removed the stone, and the patient left the hospital thirty-six days after operation, since which time she has had no return of the symptoms.

H. L. P., Surgical Ward, West Philadelphia General Hospital.

Patient of Dr. Percy Ealer; age, 36; 11/26/07.

Occupation, hosiery finisher.

History.—Patient sought relief from blood and frequent urination. He had an attack of urethritis twelve years ago. Has been passing blood for the past four months, being compelled to urinate from twenty-five to thirty times by night and day. He has lost considerable weight. Examination disclosed marked sensitiveness of the right kidney. The urine is alkaline and contains tubercle bacilli. The temperature varies from 101 F. and 102 F. The prostate, seminal vesicles and testes are apparently involved. The capacity of the bladder is five ounces. Cystoscopic examination showed tubercular ulcerations about the trigone and right ureter.

The ureters were catheterized, the left one showing no evidences of tubercular bacilli. The right one showed pus and blood with every systole.

The patient's condition was so precarious that I did not think it advisable to resort to operation. Several days afterwards, however, following a chill and rise of temperature, he was seized with sharp pains along the course of the right ureter and marked sensitiveness about McBurney's point. I decided to drain the kidney, this temporarily relieved him by evacuating an abscess.

Yet he became slowly worse and dragged out a miserable existence in the hospital, succumbing to general tuberculosis within a few months subsequent to operation.

T. J. H., Surgical Wards, West Philadelphia General Hospital.

Age, 47; married. Occupation, brakeman. 10/11/08.

History.—Ten years ago contracted urethritis. Three years subsequently commenced to suffer pain in the region of the bladder during the act of urination; the pain extended to the end of the urethra. Strangury and blood were pronounced. The frequency of urination increased to seven times during the day as well as by night. During urination he would suffer severe pains in the left kidney. The bladder at that time accommodated but two ounces. This, however, increased to eight ounces. Kidney stone was suspected. Accordingly the patient was advised to undergo an operation. He was told, however, that no stone was found, but that white spots were seen studded over the kidney. The kidney was drained and he left the hospital five weeks after the operation. No relief however, occurred. The strangury became even worse and the de-

sire to urinate almost unbearable. The frequency increased to every fifteen minutes, both day and night.

Examination showed the prostate engorged and sensitive. Catheterization of the bladder was accomplished with great difficulty, because of contracture at the neck of the bladder. Anæmia was pronounced. Cystoscopy was impossible. Bladder irrigations could not be practiced. Accordingly I decided to drain the bladder by perineal section, as a preliminary to cystoscopy. Convalescence was uneventful, and one month afterwards, the urine had greatly improved, the bladder capacity increasing so that I was able to cystoscope him and catheterize both ureters. The right ureter was normal and presented no evidence of kidney involvment. The left ureter, however, was hidden in a mass of ulcerative lesions. Bloody urine was seen spurting from it. It was catheterized with difficulty. The urine showed albumen and tubercle bacilli. Accordingly it was decided to remove the kidney and ureter. The patient was given the benefit of out-door treatment for a while, together with gentle irrigation of the bladder. His general health having slightly improved he re-entered the West Philadelphia Hospital, and I removed the kidney and ureter. He was in bed thirteen days, in the hospital twenty days, and left decidedly improved in every way. I see him occasionally. The urinary symptoms have decidedly improved and likewise his general condition.

Renal hæmaturia may, too, arise from nephritis, tumor, disease of the supra-renals and renal angioneurotic changes. Syphilis has been directly responsible for three of my cases, all of which recovered promptly from rest in bed and intra-muscular injections of sozoiodolate of mercury. Bleeding from the kidney is not infrequently met with, or, as a sequel, of, typhoid, malaria, variola and influenza; hemophilia is, of course, a frequent cause, as is scurvy. It occasionally complicates appendicitis, and may arise in the latter months of pregnancy from pressure of the gravid uterus upon the ureter.

Pathologically, the lesion in the kidney is a chronic nephritis, involving the tubules or glomeruli (usually both), as well as a degeneration of the mucous membrane of the pelvis of the kidney. The source is usually haemic or ascending infection from the bladder. The symptoms of unilateral renal hæmaturia are blood varying from

profuse to microscopic, occasionally renal clots and pain of a boring character at the costo-vertebral angle. As before stated, cystoscopy is the only reliable means of diagnosing the source of the bleeding, and the ureteral is the only means of making a differential diagnosis between blood coming from the various portions of the ureter and the kidney. This may be accomplished by collecting the urine from different parts of the ureters and seeing if any blood is present, and, if so, whether it is due to kinks, valves, stricture or ulceration of these tubes. Having located the source of the hæmorrhage, it becomes necessary then, to search for the exciting cause. Time will not permit us to discuss exhaustively the symptoms present in all diseases causing hæmaturia. They alone are worthy of a separate paper. Only the chief aids to diagnosis will be mentioned. Calculosis has been named as the principal cause of unilateral renal hæmaturia. It is not necessary that the stones be large. Indeed, bleeding may result from a minute stone or even particles of sand. Reports of cases operated have shown hæmorrhage disproportionate to the size of the foreign body. To confirm the suspicion of stone we may have to infer, in addition, to the usual clinical phenomena to 1, the X-ray, 2, Bierhoff's pelvic distention test for the detection of stone in the kidneys (which has been mentioned in one of my former articles);* 3, urine analysis of the catheterized specimen from each kidney. Tubercle bacilli, when found in the urine are confirmatory, but in the early stage of tuberculosis recourse must frequently be had to inoculation experiments upon guinea pigs. It is absolutely imperative that the withdrawn urine from both kidneys be tested separately to avoid diagnostic errors.

Movable kidney is usually discovered by palpation, percussion and the associated digestive, neurotic and urinary symptoms. Malignancy is exceedingly difficult to diagnose. Caspar claims that the early diagnosis of renal malignancy rests upon functional renal examination, obtained, of course, only by ureteral catheterization. He discards cachexia, pain, pus and tissue cells in the urine, as well as casts. Tumor is the one other symptom he relies upon. Even here the detection of tumor may be difficult, and tumors are not always malignant. Malignancy, however, occurs in those over forty. The

*"The Indications for Cystoscopy." Reprinted from the *Hahnemannian Monthly*, November, 1907.

hæmaturia is profuse and sudden. Urine analysis and the catheterized specimen may show cancer cells. There may be tumor formation. The prognosis and treatment of renal hæmaturia depends upon discovering the condition which causes it. An accurate prognosis can then only be given. Rest is of importance in all cases. The hygienic and dietetic measures suitable for hæmaturia, due to scurvy and infectious diseases, is similar to that given when bleeding is not the result of these conditions. The internal remedies most valuable are Calcium chloride, Adrenalin, Ergot, Hamamelis, Cantharis, Quinine, hypodermic of gelatine, and mercury in those of syphilitic origin. The mechanical means that are of value are irrigation of the kidney pelvis, with a saturated solution of Boracic acid, to which has been added a few drops of a one to one thousand solution of Adrenalin chloride. This is especially of value in the hæmaturia of pyelitis. Surgical measures are most frequently employed for the cure of hæmaturia, and judging from authorities (Israel, Caspar, Rosving, Guyon, Cumston, and Guiteras), nephrotomy is the operation of choice. It is particularly remedial where the bleeding occurs from pyelitis, due to infection, stone and limited areas of tuberculosis. It has been my privilege to observe Guiteras do a not inconsiderable number of these operations and nephrotomy has usually been selected; except in malignancy and advanced tuberculosis, where, if operative interference was employed, nephrectomy was chosen. Even here it was usually preceded by nephrotomy. The latter has many advantages. First, it allows for drainage without destroying much of the substance of the kidney; second, it admits of exploration as a guide to accurate diagnosis; third, it frequently relieves the bleeding by discovering and removing the cause where other measures have sometimes failed; fourth, both kidneys may be drained simultaneously. Nephropexy is the operation of choice for misplaced kidney. It may be advantageously combined with nephrotomy or nephrolysis. Harrison and Edebohls insist on kidney decapsulation for hæmaturia. It is of value for cases arising from chronic nephritis. Partial and total nephrotomy should be reserved only for advanced cases of tuberculosis and malignancy and the result of severe injury.

X-RAY STUDIES OF GASTRO-ENTEROPTOSIS.

J. W. FRANK, M. D., PHILADELPHIA.

Before taking up the technique of X-ray diagnosis of this condition, I wish to mention a few symptoms which would lead us to suspect a visceral ptosis, as well as to briefly mention some associated conditions.

Very important it is to remember that this condition, even at an advanced stage, may exist without any symptoms, and that enteroptosis, as such, remains probably always latent, and produces symptoms only when complications are added, such as traumatism, over-exertion, errors in diet, constipation, tight lacing, etc.

Digestive disturbances pertaining to the stomach, consist, in cases of enteroptosis, of pressure, fulness, variable appetite, characterized by their irregularity and paroxysmal character, depending, in a measure, upon the digestive proceeding and the quality of the ingesta and independent from them at other times.

Other abnormal sensations, such as heat, burning in the epigastrium, eructation, pyrosis, regurgitation of food, even vomiting may be found, but not typical of all cases. These symptoms are relieved by physical and mental rest.

Another very characteristic symptom is habitual constipation. Rarely do we find diarrhœa, and when it is present, usually alternates with constipation. Abdomen more or less distended, patient complains of flatulency.

Boas observed the occurrence of membranous shreds in 27 per cent. of his cases and he believes that the colitis membranacea is caused by the abnormal kinks and flexures at the affected section of the colon, which, finally, lead to a real and more or less extended catarrh of the colon, and cites the following case as an example of this kind:

"Mrs. M. T., 32 years old, was always well until her first confinement, 17 years ago. Afterwards abdominal complaints, continuing all this time, with exception of small intervals of relief, in spite of appropriate treatment. Five months ago patient took ill; severe pains in left side. She observed mucous shreds in the stool; constipation; no pain.

"Physical examination shows the following conditions: Stomach

has descended, the greater curvature deep below the level of the umbilicus, the lesser curvature at the level of the umbilicus. The right kidney is somewhat displaced (first degree). On inflation of the colon, the position of the transverse colon entirely below the umbilicus; its outlines are seen ascending from right below to left above, in shape of festoons. In region of the sigmoid flexure, marked tenderness. Moreover, patient suffers from leftsided parametritis and endometritis. On examination, the evacuated membranes correspond as to form and clinical condition to those in cases of colitis membranacea."

Sometimes the habitual constipation leads to ordinary intestinal catarrh, with its characteristic stools, *e. g.*, mucous covering or mixed with the stools, or the catarrhal colitis may alternate with the membranous colitis.

These symptoms, from the nervous system, are local and general. The former consists of more or less severe pains, increased on exertion or bending and are due to dragging of the nervous plexus, connected with the displaced organs.

A very prominent symptom is pain in the small of the back, which, nearly always present, to a slight degree, may become very severe, particularly on motion.

GENERAL SYMPTOMS.

Headache, change of complexion, epigastric pulsation, which may, at times, simulate a pulsating tumor.

Nutritive disturbances are found in almost all typical cases of gastroptosis. Loss in weight and decrease in adipose tissue, dry, scaly skin, cold extremities, easily tired out by slight bodily exertion, and the majority of patients are in a state of subnutrition.

The causes are many; fear of taking food (sitaphobia) on account of suffering, abstinence as a remedial measure, either self prescribed, or ordered by the physician. These lead on to a further loss of flesh, lessened appetite, constipation becomes more pronounced, autointoxication and general malaise, marked inanition often results, which may, at first thought, be mistaken as being due to malignancy.

If associated with displaced kidneys, may find irregular diuresis, if one or both kidneys are displaced, temporary kinking of the

uterer oliguria, or even anuria may occur, to be followed later by polyuria. If chronic kinking exists, real hydronephrosis may result.

Objectively, we may, and often do, find associated a displaced kidney or kidneys; liver and spleen may also be displaced.

I shall not go into the details in regard to the objective symptoms, except to mention a few of the more prominent ones.

On inspection, the epigastrium, normally convexed and at the same level as the umbilical region, has sunk in, more or less, while the umbilical region and the hypogastric region becomes more convex. In marked cases, if the individual be a thin one, we may be able to see the greater curvature and, in some few cases, the lesser curvature. The associated coloptosis is not so easily detected by inspection.

Stiller's sign (which is a floating tenth rib) may be looked for, but many physicians claim it to be of doubtful value.

In the X-ray we have an agent which gives us positive results, as well as furnishes us data for records. The use of the X-ray in the diagnosis of gastro-enteroptosis dates back but a few years. In 1905 Dr. F. L. Fildstein, of Germany, succeeded in making skiagraphs, which showed the size, form and position of the stomach. In this country, probably, Dr. G. E. Pfahler, of Philadelphia, has done more work in this line than any other. Leonard, Pancoast, Kassabian and Sweet, of Philadelphia, and Cole and Williams, of New York, have also done work along this line.

TECHNIQUE.

Patient's bowels should be freely moved by purgation. In order to skiagraph the stomach, we must fill it with some material which is opaque to the X-ray, and for this purpose we generally use Subnitrate of Bismuth C. P. The Bismuth is suspended in milk, which is most commonly used, or gum arabic water. I prefer the latter, as it appears to give a more even shadow. The exposure is made about ten minutes after the Bismuth preparation has been swallowed and the patient, in an uprigh posiion, is placed with abdomen nearest the plate; exposure from ten seconds to two or three minutes, depending upon the size of your patient and the strength of your X-ray current generating apparatus.

To determine whether delayed mobility be present, another ex-

posure should be made about six hours later. If any of the Bismuth is found in the stomach, it shows that the motor function of the stomach is not normal, as normally, the stomach should be empty by that time.

To make a skiagraph of the colon, we have the choice of two procedures:

1st.—After the exposure for skiagraphing the stomach, we can wait until the Bismuth has passed on to the colon (which requires from 24 to 72 hours, depending upon the condition of the patient's bowels) and then make the exposure, patient in the upright position, abdomen nearest the plate.

2d.—If time is a factor, it can be done at once, by first flushing the colon, then injecting about two quarts of milk or gum arabic water, in which has been suspended two to four ounces of Sub-nitrate of Bismuth and proceed as before; but this can ouly be done provided you have not first given Bismuth by mouth, as the shadows of the stomach and intestines would over-lap each other and would be unable to differentiate between them.

The best results are obtained by the first method.

After having made the exposure, development is carried out in the usual manner, and after thoroughly fixing and washing examine in a good transmitted light.

X-ray examinations, when carried out right, are always positive. In a study of ten cases which came under my observation, I found nine cases suffering with obstinate constipation; one with alternate constipation and diarrhœa; all complain of more or less pain in the back, gastric disturbances found in all to some extent, very marked in six cases, vomiting present in four cases. The nervous disturbances were quite marked in all cases, without regard to sex, being present as frequently in men as in women.

I find coloptosis to be more prominent than gastroptosis; as an example, the following cases:

Mr. C.; age, 47; for past eight or nine years has been suffering with epigastric pain and heaviness, which was worse after eating, pains and fullness in the left side, just above the iliac crest, which would be relieved by rubbing, causing the accumulated gas to pass on into the sigmoid flexure; patient highly neurotic and emaciated, afraid to eat, on account of the distress food causes him. X-ray ex-

amination shows a very small stomach, lesser curvature on a level with the umbilicus; greater curvature about two inches below the umbilicus, fundus to left of middle line.

Another plate, taken twenty-four hours later, reveals the colon deep down in the false pelvis, transverse portion coming up to join the sigmoid colon, making a sharp kink, which, undoubtedly, offers more or less resisance o the onward flow of the fecal stream, and I believe, is the cause of pain and distress in that area. This patient was also markedly constipated. In this case it seems to me that coloptosis was the primary condition and that the gastroptosis was secondary to it.

Case 2.—Mrs. R.; age, 22; married; one child; was well until birth of her child two years ago, when following an outbreak of urticaria, her feet became œdematous, some œdema of the hands and face, followed by pain in both lateral regions of the pelvis, radiating toward the groins, epigastric pains also present, vomiting of a greenish fluid, unable to retain food; severe headaches; obstinate constipation during the attacks, unable to urinate, but no pain on urination. Urinary examination shows urine to be clouded, of a pale color, specific gravity 1012; acid reaction, slight trace of albumen, sugar negative, urea .014.

Physical examination.—Was able to locate the right kidney displaced downward, second degree.

X-ray examination.—Shows both stomach and colon displaced downward into the pelvis.

These cases, I think, will illustrate what we may expect to find under similar circumstances.

CONCLUSION.

That many cases of gastro-enteroptosis pass unrecognized and that many cases of gastro-intestinal disturbances, such as obstinate constipation, indigestion, heaviness, fullness, etc., are due to this condition.

In cases of membraneous colitis, we should always think of the gastro-enteroptosis as being the cause.

2d.—In the Roentgen rays we possess an aid to diagnosis, which cannot be replaced by any other, and they should be resorted to in all cases of doubt.

DON'TS IN ANÆSTHESIA.

ARTHUR HARTLEY, M. D., PHILADELPHIA.

1. Don't give solid food for six hours before giving Ether or Chloroform.

2. Don't give solid food for two hours before giving Nitrous oxide or Ethel chloride.

3. Don't give liquid food for three hours before giving Ether or Chloroform.

4. Don't give water for an hour before giving an anæsthetic.

5. Don't overlook the emptying of the bowels before giving an anæsthetic.

6. Don't forget to have the bladder empty.

7. Don't allow the patient to be out of bed for, at least, twelve hours before giving the anæsthesia, whenever practical.

8. Don't overlook foreign bodies in the mouth.

9. Don't fail to examine the chest for heart and lung diseases; do it before the patient is to be anæsthetised, if possible.

10. Don't frighten the patient while the examination is being made.

11. Don't overestimate the gravity of heart lesions discovered when patient is about to take anæsthetic.

12. Don't forget to ask the patient:—If he is short of breath while using active exercise, such as running, walking up inclines, etc. (Heart.) If the feet and legs swell. (Heart and kidney.) If he has a winter cough. (Lungs.) This will lead to a fairly good idea of the grave lesions of either heart, kidney or lungs.

13. Don't allow constricting band about the patient's neck, chest or waist.

14. Don't overlook nasal, pharyngeal or buccal obstructions to respiration.

15. Don't use a general anæsthesia when a local anæsthetic is practical.

16. Don't use a local anæsthesia in grave or nervous cases.

17. Don't use Chloroform when it is possible to use Ether.

18. Don't use Ether in *grave* lung lesions.

19. Don't use Chloroform in grave heart lesions.

20. Don't be afraid to use Ether if the quality of the heart's sound is good.

21. Don't fear to give Ether to patients of all ages. In the young and aged give a greater percentage of air.

22. Don't condemn anæsthetics with which you have had little or no experience.

23. Don't forget that Nitrous oxide or Ethel chloride, or its combinations, given before Ether, overcomes its unpleasant effect and prevents after vomiting and distress.

24. Don't forget the mortality of Nitrous oxide, per se, is practically "nil."

25. Don't give Ether or gas to patients with marked arteriosclerosis.

26. Don't forget Chloroform may be given in cases with a heart lesion (Patton), if great care is exercised.

27. Don't overlook the fact that the anæsthetist assumes as grave a responsibility as the operator in *major* cases and his responsibility is *greater* in minor cases than that of the operator.

28. Don't forget that your first consideration is your patient.

29. Don't talk to those around you.

30. Don't fail to reassure the patient.

31. Don't fail to gain the confidence of the patient before applying the inhaler.

32. Don't use the closed inhaler.

33. Don't place the inhaler tightly on the face at the beginning of the administration.

34. Don't give large quantities of the anæsthetic in the beginning. Use the drop method, giving from fifteen to sixty drops the first minute and gradually increasing to a rapid or continuous drop.

35. Don't exclude the air to any great extent nor give large quantities of Ether until the superior and recurrent laryngnal nerves have lost their irritability.

36. Don't give large quantities of Ether (meaning crowd it), when the patient coughs or holds his breath. Raise the cone one-half an inch from the face at either end, continuing to give the Ether without intermission until natural breathing is resumed, then gradually lower the cone to the face and continue.

37. Don't hold the jaw up when starting to give Ether or Chloroform. Wait until sensation is dulled and consciousness lost.

38. Don't allow talking or noise in the room when a patient is being anæsthetised. The anæthetist may talk to his patient.

39. Don't expose the patient to cold while giving the anæsthesia, must be well blanketed.

40. Don't *hold the patient down* when he moves. Restraint is necessary only when there is violent struggling and there is danger of the patient doing harm to himself or those around.

41. Don't forget that a patient is easily controlled by suggestion and will not move about if told to lie still and put his hands and feet down.

42. Don't allow the patient's hands to interfere with the inhalation. An assistant can prevent this by putting his arms across the patient's chest without touching it, thus forming a barrier between the hands and the inhaler.

43. Don't mistake the stage of quiescence which occurs between the first and second stage for surgical anæsthesia, be guided by the reflexes.

44. Don't allow the jaw to drop down when consciousness is lost, hold it up during the second, or stage of excitement. Don't fail to hold the jaw up and forward when relaxation has occurred. This insures a free air passage.

45. Don't allow the adjustment of blankets or active preparation of the patient until unconsciousness and relaxation have occurred.

46. Don't use artificial respiration when the patient ceases breathing in the second stage. This may be the only manifestation of muscular excitement and may last a full minute, but the reflexes will all be present.

47. Don't *exclude* the air when the patient has a spasm of the glottis, rub the lips vigorously and dilate the sphincter and use rhythmical contraction of the lower jaw, holding it up firmly the while.

48. Don't exclude the air in blonde patients. They become more readily cyanotic than others.

49. Don't allow too much air, vomiting will occur.

50. Don't mistake the dilated pupil of cyanosis for the dilated pupil of overdose.

51. Don't forget that quiet breathing may mean the patient is getting too little of the anæsthetic and is coming out and about to vomit, give small quantities.

52. Don't overlook the fact that *shallow sighing* respiration, with absent reflexes is due to too much of the anæsthetic. Central failure of respiration.

53. Don't expect to find the patient shocked from the anæsthetic when the anæsthetic reflexes are present.

54. Don't forget that the first stage of anæsthesia ends with the loss of memory (unconsciousness), and the second stage begins with muscular excitation, slight or violent, and ends with muscular relaxation, that the third stage, or surgical anæsthesia, begins with relaxation and ends with the loss of the anæsthetic reflexes, save the pupillary and corneal; that the fourth stage, that of stage of overdose (or bulbar paralysis), begins with loss of all save the pupillary and corneal reflex and ends with death.

55. Don't forget that anæsthesia is physiological to the end of the third stage and pathological or toxic in the fourth.

56. Don't forget that in the signs of the first stage or anæsthesia the reflexes are all present and the patient is conscious.

Second or exciting stage (ranging from contraction of the chest muscles momentary with holding the breath to violent muscular movement).

The heart's action is accelerated—breathing alternated, shallow or jerky.

Reflexes all active.

Pupils dilated when the lid is raised, contracting upon exposure to light, remaining contracted, sometimes redilating slightly.

Third stage (relaxation).

Heart's action accelerated, but full and regular.

With $CHCl_3$ it is slow, full and regular.

Respiration regular, free, more rapid than normal.

With $CHCl_3$ is quiet and regular.

Reflexes absent save conical, which is active.

Pupils contracted, remaining contracted.

Fourth stage (toxic or overdose).

Ranges from mild to grave.

Mild—heart action little altered from third stage, save in $CHCl_3$, when it is slowed.

Respiration little altered from third stage.

Reflexes absent save the conical, hich is sluggish.

Pupils dilated, contracting, redilated to original dilatation.

Grave—heart action labored and weak, pulse rapid and thready.
Respiration shallow and sighing.
Reflexes abolished.
Pupils dilated and fixed.
Surface cold and clammy.
Eyelids apart.
Cornea dry and glazed, and, if continued, death.

57. Don't forget that a patient may pass quickly from the second to the fourth stage when Ether is added continuously and that when no Ether is added may pass quickly from the fourth to the second stage.

58. Don't forget that it requires from thirty to sixty seconds after giving Ether before its effect is noted.

59. Don't forget that Chloroform is seven times more powerful than Ether as an anæsthetic or toxic agent.

60. Don't keep the cone over the face when the pupils become dilated and fixed. Dilated and fixed pupils occur with:

1. Overdose.
2. Carbon dioxyde poisoning.
4. Shock.

61. Don't abolish the cornea reflex. It is lost in beginning, overdose, shock and carbon dioxide poisoning.

62. Don't allow the accumulation of mucus.

63. Don't hold the jaw up and forward in patients who have no teeth. It will cut off the air space.

64. Don' allow the pupils to remain at a point where they contract vigorously and remain contracted. Give more of the anæsthetic.

65. Don't give more of the anæsthetic when the pupils contract and *redilate widely.*

66. Don't stop giving the anæsthetic:

1. When the patient is swallowing.
2. When the eyeballs roll from side to side.
3. When there is an infrequent, prolonged inspiration or sigh.
4. When the respirations are quiet.
5. When the patient moves his eye-brows or fingers, or when the patient begins to vomit.

67. Don't give the anæsthesia if the patient has:

1. Spasm of the glottis.
2. Jactitations (this is muscular contraction of the shoulders).
3. Cyanosis.
4. Shallow, irregular breathing.
5. Weak, thready pulse.
6. Cold, clammy surface, with lids apart.
7. Insensitive cornea.
8. Dilated pupils, or when the rectum is being divulsed.

68. Don't forget the patient eliminates the anæsthetic through the lungs, kidneys, gastric mucosa and skin.

69. Don't forget the drop method allows the patient to eliminate the anæsthetic almost as rapidly as it is absorbed, when the reflexes are not abolished.

70. Don't overlook surgical anæsthesia when using Nitrous oxide, Ethel chloride, or its combinations.

71. Don't forget cyanosis is lacking in surgical anæsthesia of Ethel chloride.

72. Don't forget that stertor and jactitations are indications for the admission of air.

73. Don' forget that anæsthesia deepens with the admission of air after surgical anæsthesia from Nitrous oxide and Ethel chloride.

74. Don't forget that a readministration of Nitrous oxide and Ethel chloride frequently causes after sickness.

75. Don't forget that in giving Nitrous oxide, to give air after fifteen continuous respirations and allow one respiration of air after each succeeding five respirations from Nitrous oxide.

76. Don't give Chloroform in the sitting or recumbent position.

77. Don't hold the Chloroform inhaler closer than one and a-half inches from the face.

78. Don't give Chloroform except by the slow drop method.

79. Don't forget that a patient is in a state of surgical anæsthesia when there is, after having been present,

1. An absence of swallowing.
2. Absence of sighing respiration.
3. Absence of lid reflex.
4. Absence of rolling eyeballs and the pupils are contracted and do not react to light.

5. Do not touch the cornea.

80. Don't continue the anæsthetic when the patient ceases to breathe, give air and, if the anæsthetic reflexes are present, wait for the first return of normal breathing.

81. Don't forget that cessation of breathing may be due to muscular contraction of the chest muscles in the second stage.

Spasm of the glottis, or from a central paralysis or local obstruction.

82. Don't forget that bronchitis may be due to an excess of mucus and a stationary position of the patient after operation.

83. Don't forget that pneumonia occurs from inspired infective material and exposure to cold.

84. Don't forget that most of the blood of the body may accumulate in the vessels of the abdomen from vaso-motor paresis.

85. Don't forget that anæmia of the brain, from the anæsthetic, may cause cardiac or respiratory failure.

86. Don't forget that cardiac and respiratory failure may occur simultaneously or separately.

87. Don't forget cardiac or respiratory failure may be central or superficial.

88. Don't forget that an acute dilatation of the stomach after operation simulates shock.

89. Don't add carbon dioxide to Chloroform anæsthesia.

90. Don't give anæsthesia with the first inspiration after prolonged holding of the breath. Chloroform may cause an acute dilatation of the heart.

91. Don't forget that a patient may stop breathing when a clamp is applied to a hæmorrhoid.

92. Don't forget the patient may stop breathing with the first incision.

93. Don't forget that manipulation of the great vessels and nerves of the neck during operation may cause shock.

94. Don't forget that cardiac failure, if central, is slow in onset. If parietal is sudden and usually fatal from acute dilatation.

95. Don't forget that in the short term anæsthesia death occurs from asphyxia.

96. Don't forget the patient should be deeply under the influence of Chloroform in operations for eclampsia.

97. Don't forget the patient may die days after the administration of Chloroform from fatty degeneration of the vital organs.

98. Don't forget a patient may die if left unattended before muscular control is regained.

99. Don't forget that appoplexy may occur during or after an operation under general anæsthesia.

100. Don't allow draining of fluids until the pulse warrants it.

101. Don't give Ether on an unprotected cone near a naked flame; or when the actual cautery is being used about the face or chest.

102. Don't stimulate a patient until the inhaler has been removed and fresh air or oxygen has been inhaled.

103. Don't forget that rubbing the lips with a rough towel stimulates respiration.

104. Don't forget that which stimulates respiration stimulates circulation.

105. Don't forget that Adrenalin and Ergot should be used as stimulants in shock.

106. Don't forget Atropin and Strychnine in respiratory embarrassment.

107. Don't forget sprayed Adrenalin upon mucous membranes is readily absorbed.

108. Don't forget that Adrenolin stimulation is of short duration and should be frequently repeated.

109. Don't use artificial respiration without first emptying the chest.

110. Don't forget massage of the pneumogastric nerve stimulates respiration.

111. Don't forget in cardiac-syncope (an acute dilatation of the heart), to stand the patient on his feet if lowering the head gives no result.

112. Don't forget in shock from loss of blood, to use saline solutions, hypodermically or intra-venously.

113. Don't forget that excess of saline solution in the body may cause œdema of the lungs.

114. Don't forget that spasm of the glottis may be overcome by,

1. Rubbing the lips.
2. Compression of the chest.
3. Massage of the larynx.

4. Massage of the pneumogastric nerve.
5. Last, and of greatest importance, is the dilatation of the sphincter ani muscle.

115. Don't forget, in an excess of mucus in the chest, to have patient turned on the side when returned to bed.

116. Don't forget in respiratory failure,

1. Air.
2. Oxygen.
3. Lowering the head.
4. Rhythmical compression of the chest.
5. Massage the pneumogastric nerve.
6. Dilatation of the sphincter ani muscle.
7. Rhythmical traction of the tongue, artificial respiration and stimulants.

117. Don't forget to wash out the stomach after operations for bowel obstruction and in peritonitis.

118. Don't forget that threatened vomiting may be overcome by rhythmical traction of the lower jaw.

119. Don't perform artificial respiration when the patient holds his breath in the second stage. It is due to a spasm of the glottis or of the chest muscles.

120. Don't forget vinegar or acetic acid inhalations as preventives after vomiting.

Use hot water, Nux vomica in hot water, Bicarbonate of Soda in water, to overcome after vomiting.

THE PREVENTION OF SEPSIS FROM INFECTED FLESH WOUNDS.

J. M. MAURER, M. D., WASHINGTON.

Flesh wounds, which are caused by any instrument, even though it be but a scratch upon the skin, may be infected by the instrument inflicting the wound or by germs getting into the wound from without, in numerous ways, as air, hands, clothing, dressing, etc.

In the infancy of antiseptic surgery in the year 1867, Lister said: "Decomposition in a wound and affections of wounds, due to decomposition, are intimately connected with micro-organisms coming from without.

"The wound treatment and dressing should prevent the access of micro-organisms, and, when these have entered, notwithstanding every care, they should kill them, or render them incapable of harm.

"The dressing and the substances used for killing the micro-organisms should not irritate the wounds at all, or, at best, very little."

This truth holds good to-day, and I shall not go into the history of antiseptic surgery and the doctrine of micro-organic origin of infection and disease. These claims have long been recognized and accepted.

We know that sepsis is a condition of putrefaction, which has taken place in the tissue by the presence of micro-organisms.

During the time of incubation, and, indeed, after the inception of putrefication, we can avoid sepsis by antiseptic treatment and proper drainage.

In favorable conditions to the development and decay of these germs, deadly poisons, leucomaines, and others, are eliminated and taken up by the absorbent vessels and carried into the system.

All wounds of the above class may not be infected by the instruments inflicting the same, but it would be safer to suspect all such wounds as being infected. Our duty, then, in all cases, would be to give such treatment as would aid nature in getting rid of the micro-organisms and prevent any further infection from outward causes, and not wait until we have the evidence of an infected condition. All instruments, dressings, and everything that would come in contact with the wound should be thoroughly sterilized or disinfected.

I know of no better way to give the technique of the treatment of various flesh wounds than to give a few select cases with the treatment.

1. Miss M. M. was accidentally shot through the thigh with a 22 caliber rifle, making a wound seven inches long.

Treatment.—With a small vacuum pump drew out a few drops of dark blood from the wound at the entrance and exit of the bullet; put upon each opening a small piece of absorbent cotton, saturated with sixty-five per cent. alcohol dilution of Hypericum perfol., and bandaged with rubber bandage to prevent evaporation. Then gave the patient a bottle of the Hypericum and instructed her to raise the edges of the rubber bandage and pour on, every hour or two, a sufficient quantity of the dilution to keep the cotton constantly moist.

Visited patient morning and evening, renewing and saturating the cotton at each visit.

The patient did not feel the slightest pain from the wound during the treatment, and was well within two weeks.

2. Mrs. A. M. ran a sewing machine needle through the joint of her thumb between the articulation.

Treatment.—Extracted needle; then wrapped the joint with a piece of absorbent cotton, saturatd with Hypericum per., covering this again with rubber bandage. Kept the cotton thoroughly saturated with the Hypericum for two hours.

The pain was relieved at once, and no further trouble followed.

3. J. G. had two fingers cut with a knife. They were dressed by another physician. He came to me suffering intense pain.

Treatment.—By manipulating the finger, slightly opened the wounds between the stiches to cause a slight bleeding. Dressed the wound with the solution of Hypericum, keeping the cotton saturated six hours; then used a dry dressing, Iodoform.

The pain was relieved immediately, and the wound healed in four days.

4. P. P. had finger crushed between cogwheels.

Treatment.—Used the Hypericum on the cotton, as in the other cases, for two days. The pain ceased instantly. Employed the dry dressing after the second day, and had no further trouble.

5. L. M.: boy; æt. six years; ran an old rusty nail into his heel. He was brought to the office three days after the accident. His foot and leg were badly swollen, his heel was very painful, and he had not slept any during the previous night.

Treatment.—Severed the dead cuticle about one-fourth of an inch in several directions outwardly from the wound to relieve the tension caused by the swelling and hardened skin, which was causing much pain. Scratched the opening of the wound with a dull knife in order to open the small vessels to aid depletion. With a vacuum pump drew from the wound a few drops of dark or decomposed blood. Then folded a piece of gauze an inch square, saturated with Pixine, placed it over the wound and covered this with Z. O. Adhesive Plaster to exclude the air. Cleansed the wound with Peroxide of Hydrogen and dressed it twice a day.

There was no pain after the first dressing, except from pressure. The child was well in one week.

6. J. K; boy; æt. nine; ran a nail an inch or more into his instep.

Treatment.—Within an hour of the accident. Opened the vessels with the vacuum pump; placed a piece of cotton saturated with Hypericum over the wound; covered the cotton with oiled silk, and then bandaged. The cotton was kept saturated five or six hours.

There was no pain after the application of Hypericum, and no further treatment was necessary, except to keep the wound covered with bandage to exclude the dirt. The next day he could walk on the foot.

7. M. D.; girl; æt. three; was brought in from the country, having been bitten on the leg by her pet dog. The dog was frothing at the mouth at the time, and had been snapping at various things during the morning. It was shot before they left home with the child.

Treatment.—Used the vacuum pump over each wound made by the teeth and drew out all the dark blood, drew until the blood was bright red. Then placed the cotton saturated with Hpericum over the wounds, covering the cotton with oiled silk, and bandaged. The cotton was kept constantly moist day and night, and the dressing changed twice a day, for four days.

I was fearful of hydrophobia and advised the parents, after the first dressing, to take the child to the Pasteur Institute, of Pittsburg, but they were poor and failed to take my advice. However, the wound healed and the child never had any bad result following..

While I would advise every person bitten by a suspected rabid dog to be taken to a Pasteur Institute for treatment. I should also advise the drainage treatment with vacuum pump and Hypericum to be used immediately, or as soon as possible. It would give the patient a better chance to recover by the Pasteur treatment, while those who could not receive serum treatment, would still have a fair chance to recover from the infection.

8. Dr. G., homœopathic physician, three days after operating on a case of stone in the kidney, was awakened shortly after midnight with severe pain in the right elbow. His hand and arm were swollen and his index finger painful at the end. I did not see him until afternoon, about eight or ten hours after his awakening with the pain. By this time both the swelling and pain were greatly increased. The infection was under the nail.

The case upon which he had operated was septic, and I suppose

in dislodging some of the stones he had torn the skin from the nail, but the wound was so slight that he did not notice it at the time.

Treament.—Scratched the wound with a dull instrument to start bleeding. Could not make use of the vacuum pump, so wrapped arm, hand, and finger from elbow down with coarse twine, and manipulated the end of the finger to force bleeding. Loosened the twine and repeated the winding and manipulation a number of times until the vessels at the end of the fingers were pretty well depleted. Then produced folded piece of gauze, saturated with Pixine, over the end of the finger, and covered this with oiled silk. Bound the arm and hand with cotton which was wet with a solution of Tyree's antiseptic powder—a heaping teaspoonful to a pint of water—then covered the cotton loosely with oiled silk, for the inflammation had extended from the fingers up the arm. The cotton was kept wet constantly, day and night, for three days, while the dressing was changed twice a day. In four days the doctor was able to attend to his patients.

The toxic substances produced within the wound by septic or other processes give rise to systemic infection. It is before pus formation that Hypericum should be used, but after the presence of pyogenic germs some germicidal ointment, such as Pixine should be used, which would keep the tissues soft and the wound open for drainage.

Reference: Burnham—Antisepsis and Antiseptics.

INSTRUCTIVE CASES FROM THE WARDS OF HAHNEMANN HOSPITAL, PHILADELPHIA.

H. L. NORTHROP, M. D., PHILADELPHIA.

In the first place, permit me to make some general remarks concerning my cases of appendicitis. There is nothing new in points of diagnosis or of treatment; the same cardinal symptoms of pain, localized tenderness at the so-called McBurney point (which is still a movable point) and muscular rigidity, obtain. It is still true, from the surgeon's point of view, that if the symptoms are not positively ameliorated under careful dieting, thorough moving of the bowels, and homœopathic remedies, within a period from the initial onset of

the symptoms, varying from 10 to 20 hours, according to the case, the advisability of immediate operation should be seriously considered. The majority of cases which reach the operating table nowadays can and should be given the benefits of the intermuscular, or gridiron operation, and the size of the wound should be reduced in all cases which are not to be packed and drained. A cutaneous scar of two or three inches in length is the ideal size. I am still a strong advocate of the Fowler method of burying the appendiceal stump, that of making a cuff of the serous coat and outer, longitudinal muscle fibres of the appendix, stripping it back, something like the way the country boy makes a whistle from a chestnut stick. As to suture material, the well-known Van Horn products are my preference. I use No. 1 ten day chromic gut for ligating the appendix (I always tie it off twice at the same point), No. 2 chromic for the several layers of muscles, and No. 0 chromic for a subcuticular suture.

No one can afford to belittle the proven value of the Fowler postoperative position and of the Murphy enteroclysis. Here are means which have changed defeat into success again and again. A combination of the two in cases of septic peritonitis will often turn the tide in the patient's favor.

Along the same line is a case sent to Hahnemann Hospital with a diagnosis of appendicitis. Mrs. D.; age, 21; seven months pregnant; was seized with sharp abdominal pains forty-eight hours before. She had vomited frequently, and her tongue was coated; temperature by mouth, $97^{3}/_{5}°$; pulse, 160; her abdomen is greatly distended and drum-like. The only diagnosis possible was that of peritonitis of an advanced degree. Our visiting gynæcologist decided that the case did not belong to his department; it was apparent to all that this girl's doom was sealed,—that she was in the throes of a fatal peritonitis. However, in desperation, I opened the abdomen in the right semilunar line, when a very large quantity of bloody, brown, serous fluid escaped. The appendix presented no microscopical evidence of inflammation more than the injection which belonged to the peritoneum in general; I amputated it, however, and packed the wound with Iodoform gauze. The patient's condition permitted but a hurried examination for a lesion elsewhere in the abdomen. I found none. In ten hours a still-born male child was delivered, and in two hours more the patient died. Diagnosis:

Hæmorrhagic peritonitis, cause not positively known,—possibly the appendix. A microscopical examination of sections of the appendix showed it to be intensely hæmorrhagic, but without other lesion.

Another case. Acute appendicitis, complicating pregnancy; operation, abortion. To illustrate a strange coincidence, this case, similar to the one just described, was admitted to the same ward, on the same day, at the same hour, and operated upon immediately afterward.

Mrs. P.; age, 30; has one child ten months old; has not mentruated since her confinement. For three or four days has had symptoms of an inflammatory lesion in the lower part of the abdomen, worse upon right side, where the percussion note is dull. Has had several chills with high fever. Temperature, $102^{2}/_{5}°$; pulse 124; tongue heavily coated grayish brown. Uterus enlarged and boggy. Operation revealed the appendix acutely, but not extensively inflamed; ovaries and tubes were found normal, and the uterus large and doughy. I made a median incision because the symptoms of appendicitis were not clear cut, and I was suspicious of foul play with the uterus.

The next day her temperature was 101°, but she felt, as she said, "all right." Then a free, bloody vaginal discharge appeared, her temperature rose to $104^{2}/_{5}°$; pulse, 140; and she aborted in twenty-six hours from the time of her operation. The lochia remained sanguineous and free from septic odor, but the temperature ranged between 99° and 104° for nearly two weeks. On the second day after the operation she had a chill, and the next day another, with the temperature up to $105^{2}/_{5}°$. I had already made up my mind that she was septic, with the uterus as the focus. I prescribed quinine, four grains, three times daily, and intermittent saline enteroclysis; Dr. Jno. E. James, Jr., who consulted with me, ordered a daily intrauterine douche of bichloride, 1 to 4000; temperature, 110°. Her operation wound healed by first intention, and she left the hospital in three weeks.

Appendicitis is not common in pregnancy, but when it does occur it is more serious than in the non-pregnant. Many abortions occur after operation, following the death of the fœtus. However, I can recall operating upon several pregnant cases where the patient went to full term successfully without let or hindrance, and whose abdo-

minal wall seemed to be as strong as before, thanks to the gridiron incision.

Hydronephrosis, two cases, one unilateral, and one bilateral.

Mr. S.: age, 44; already manifests evidence of presinility. Ten years ago had hæmaturia; ten weeks ago typical movable kidney, easily made out (diagnosed by Dr. O. S. Haines). Now, a protrusion is to be seen and felt in left front part of abdomen, and a lateral bulging in left loin. Tumor is flat to percussion, surface is irregular, and border reaches to median line. Urinalysis: Daily quantity, 55 ounces; pale, cloudy; sp. gr., 1003: trace of albumen and hyaline casts. Evidently he has an interstitial nephritis. Diagnosis, left cystic kidney.

An incision below and parallel with the 12th rib uncovered a multilocular cystic kidney completely filling up the left loin, extending down into the left iliac fossa, and over to the median line. Although I enlarged my incision until it was ten inches long, the size of the renal tumor was so great that it was impossible to deliver it until after I had ruptured a number of the cysts. Ligation of the renal vessels and ureter was the next step, followed by an Iodoform gauze pack and a partial suture of the wound.

This kidney, the subject of cystic degeneration, measured twelve inches from pole to pole and eight inches in circumference: although no normal renal tissue remained, the tumor possessed the characteristic kidney outline.

This man progressed very favorably for two weeks, when he developed uræmia and died. His right kidney, already crippled by nephritis, was not equal to the occasion.

Miss C.: age, 35: suffered vomiting and pains in loin and abdomen three weeks ago, and had to go to bed. Examination now reveals a visible forward and lateral bulging in both loins, with dulness on percussion. The specific gravity of her urine is 1010: albumen is absent, the average daily quantity secreted is 40 to 50 ounces, varying greatly, however, one day being as low as 25 to 30 ounces, and the next as high as 70. A cystoscopic examination, made by Dr. L. T. Ashcraft, shows normal ureteric orifices, urine flowing from both ureters and the ureteric catheter passes into the renal pelvis on either side. This patient has lost weight and strength. Diagnosis: Bilateral hydronephrosis. Partly to corroborate this

diagnosis, more especially to correspond with the desires of my patient, I made an oblique incision in the left loin, the side of the larger growth, exposing a multilocular cystic kidney. I ruptured a few of the cysts, from which clear, amber fluid, of a slightly urinous odor escaped, and closed the wound, except for a small drain. This patient was told that we had done all that we could for her, and at her request she was taken to her home, one month after the exploratory operation, where she died in a few days.

These two cases of hydronephrosis are instructive, because, in one case, a movable kidney and twisted pedicle, producing obstruction of the ureter, was the cause of the dilatation and degeneration, by pressure, of the renal parenchyma, and in the other, while there was a chronic, incomplete obstruction to the urinary outflow, there was no discoverable cause of the obstruction. It is entirely posible, of course, that my case of bilateral hydronephrosis was, previously, a case of bilateral movable kidney, in which torsion of the pedicle followed; there might also have been a renal calculus at one time, which later became dislodged, but we have no clinical history of either condition. Again, in neither of these cases was the usual procedure of suturing the edges of the cut kidney to the margin of the wound, for purposes of drainage and relief of pressure and congestion, feasible. These kidneys were so completely degenerated that nephrectomy was the only proper radical step, which was impossible, of course, in the case of bilateral disease.

Chronic ulcer of the stomach, simulating malignant disease.

Mrs. H.; age, 60 years; "gastric disorder" of long standing; history of gastric ulcer with, according to Dr. Musser, perforation. Patient's present condition is deplorable. She is losing ground fast, suffers intense epigastric pain, vomits nearly all food and drink, and is becoming cachectic. No vomiting of blood. No evidence of any growth, tumor or thickening at the pyloric end of the stomach, or elsewhere, can be detected. Tentative diagnosis of chronic ulceration of the stomach was offered, and operation advised.

An incision was made above the umbilicus to the right of the median line through the rectus muscle, when I found the lesion to be located in the lesser curvature of the stomach, near the centre, and to invade the anterior and posterior gastric walls, as well. It was very hard, the size of an English walnut, and involved all the layers of the stomach. I could find no lymphatic infection anywhere.

The location of the growth in the lesser curvature, rather than its size, explained my inability to detect its presence before operation, inasmuch as it is only new growths placed in the greater curvature, or large-sized tumors of the pylorus, which can be palpated or discovered from without.

You naturally ask the question, Why was no examination made of this patient's gastric contents? For the very good reason (it seemed good to us at the time, and to the patient, too) that she was living at a distance out in the country, had no home, and had lost so much strength during the previous week that she was exhausted. Our minds were made up regarding the necessity of a radical exploratory operation, and, therefore, further tests and examination seemed inadvisable.

The external appearance of this tumor was that of a carcinoma, but whether malignant or benign, it must be removed, as it was the cause of this patient's serious condition. So I at once excised a V-shaped section of the lesser curvature, including the tumor, the gastric wound reaching more than half way across the width of the stomach. I next closed the gap in the stomach with celluloid linen thread, No. 1, suturing through all layers at once, and then reinforced this approximation by a sero-muscular suture of fine silk. I closed the parietal wound without drainage.

Examination of the inner surface of the part removed showed a deep, circular, ulcerated area, very hard and of indolent appearance, and one-half inch in diameter. A microscopical examination of this growth, made by Dr. P. Sharples Hall, reported it to consist largely of scar tissue and gastric mucosa and muscle, ulcerated and infiltrated with inflammatory products. Pathological diagnosis, chronic ulcer of the stomach.

This patient made a good recovery without a ripple of disturbance. For one week we allowed her nothing by the mouth except water, but maintained her strength by a nutritive enema every four hours. Her parietal wound healed by first intention and to-day, five months after the operation, she seems to be in perfect condiion, without "gastric disorder" of any kind.

The question I ask myself concerning my operation is, would a posterior gastro-jejunostomy, the usual operative procedure for gastric ulcer, have accomplished the cure in this case? Would it have

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relieved the vomiting, pain and hampered gastric mobility, and brought about a resolution of the ulcerated area? I say, no. Even if it had been possible for me to conclude at the moment that the growth was not malignant, I believe the proper operative course was the one pursued.

I have selected the above cases because they presented interesting problems in diagnosis and treatment, but with no effort to publish a report which would advertise the surgeon or add to his laurels.

Other interesting cases of my spring service in Hahnemann Hospital were two of gall-stone disease, one of rupture of the occipital artery, necessitating ligature of the common carotid, three cases of inguinal hernia, one of femoral hernia, one of hydrocele of the canal of the Nuck, three cases of fractured skull, three of mammary carcinoma, two of cryptorchidism, one of hypospadias, etc.

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